Applied Optics

A monthly publication of the Optical Society of America

John N. Howard, Editor
P. R. Wakeling, Editorial Consultant

INDEX TO VOLUME 6 1967

| Subject | | | | | • | | 2204 |
|---------|--|--|--|--|---|--|------|
| Author | | | | | | | 2229 |

Names of people and companies occurring in filler photograph captions have not been included in this index.

Published monthly for the Optical Society of America by the American Institute of Physics, at 20th and Northampton Streets, Easton, Pa. 18042. Office of the Editor: AFCRL, Bedford, Mass. 01730; 617-CR 4-6100. Office of the Editorial Consultant: W INC., 1500 Massachusetts Avenue N.W., Washington, D.C. 20005; 202-667-0200. Advertising office: American Institute of Physics, 335 E. 45th Street, New York, N.Y. 10017; 212-MU 5-1940. Subscription rates per year: \$10.00 to OSA members; non-members and libraries \$15.00. Single copies \$3.00; complete volumes \$30.00. Second class postage paid at Easton, Pa. © Copyright 1967 by the Optical Society of America, Inc.

1967 Feature Editors:

January
February
March
April
September
October
November
December

J. C. Gardner and K. Kessler
David G. Murcray
Murray Zelikoff
E. D. Palik
D. J. Lovell
H. Richard Blackwell
K. M. Baird
P. R. Wakeling
J. A. Sanderson

Subject Index to Volume 6*

Key to Index Use

1. Subjects, not titles, have been indexed.

 Principal subjects are given in boldface type. Cross-referenced subjects that should be consulted for more thorough coverage are given in lightface type after the principal subject.

(L), (MR), (N), (B), (P) indicate: (L) Letter to the Editor; (MR) meeting report; (N) from notes in one of the departments and not in a regular article; (B) book or book review; (P) patent. (E), (T), (E/T), (T/E) indicate that the article is experimental, theoretical, or both; (R) indicates a review article.

Aberrations

Afocal correctors for paraboloidal mirrors (T), 1227 Coefficients, third-order, new derivations (T), 765 Diffraction grating, geometrical optics theory (T), 1691 Holography as tool in testing of large aperture optics (E), 1267 Spherical

Analysis by double wire testing (E), 1073, 1436 Progress in French Canada (R, T/E), 1625

Absorbers

Saturable, analysis (T), 947

Absorption

Attenuation of millimeter wavelength radiation by gaseous water (T), 1391

Bands,

Broad, in solids, magnetooptical experiments (E/T), 669 Overlapping (E), 1422 (L)

Coefficient

Measurement accuracy of line intensities (T), 349 (L) Photoionization yield of NO in region 580-1350 Å (E), 391,

Device using, for analyzing mixtures, 527 (P)

Differential optical, for blood detection in eggs, 1566 (P)

Edge, anomalous shift in ferroelectric $BaTiO_3$ under electric field (E), 1825

Electromagnetic scattering from absorbing spheres (T), 1377 Haze, computed and experimental spectral, compared (E), 929 Infrared

Cell, 1587 (P)

Overlapping bands of atmospheric gases (E), 481

Linear, of laser radiation, damage in glass (E), 164 (L)

Measurement with hakenmethode (R, T), 1715

Near infrared atmospheric, over 25-km horizontal path at sea level (E), 489

Optical efficiency factors for concentric spheres (T), 1555

Resonance scattering from spheres (T), 1549

Solar radiation, to measure atmospheric humidity (E), 1845 Spectra, index for 1960-1963, 1714 (B)

Spectrometer system for studying, from excited metastable states of ions in crystals (E), 877

Ultraviolet, changes to monitor process changes, 527 (P)

Water, distilled and sea (E), 1201

Water vapor

Of visible and near infrared radiation (E), 709

Of millimeter radiation (T), 2005 (L)

Acoustics

Thermal scattering of light (R), 1793

Aerodynamics

Flow visualization using holographic moiré patterns (E), 1428 (L)

Aerosols

Optical properties of concentric spheres (T), 1555

Air

Optical refractive index dependence on pressure, temperature and composition (R, T), 51

Alignment

Optical, 917 (B)

Alkali-Halides

Vapors and chlorine, ultraviolet filtering properties (E), 165 (L)

Alphanumerics

Diffraction patterns (E), 170 Reproduction tolerances (E/T), 341

Amplifiers

Exponential, use with lasers as scientific probing of matter (E/T), 1411

American Physical Society

Toronto meeting 21-23 June, 1595

Antimony Sulfo-lodide

Refractive index n_e in, through ferroelectric-paraelectric transition (E), 1059

Apertometer

Precise, for microscope objective (E/T), 1679

Apodization

Progress in French Canada (R, T/E), 1625

Applied Optics

Costs and editorial problems, 106~(N), 2103~(N) Statistics for 1966, 106~(N)

Applied Spectroscopy

Canadian symposium, Montreal, 591 (MR)

Arsenic Telluride

Glass, 594 (P)

Arsenic Selenide

Glass, 594 (P)

Arsenic Sulfide

Glass, 594 (P)

Arc Channels

Saturation luminance of high density microsecond (E), 935

^{*} Prepared by Franklin S. Harris, Jr., Aerospace Corporation.

Argon

Radiant properties of strong shock waves (E), 1493

Arcs

Temperature of Hg discharges, thallium iodide effect (T/E), 1563

Aspherics

Use in double Gauss system design (E), 1911

Astigmatism

Czerny-Turner spectrometer and spectrograph correction (T), 159 (L)

Mach-Zehnder interferometer, 1583 (L), 1583 (L), 1583 (L)

Astronomy

Echelle spectrometer-spectrograph (E), 1976

Image-scanning three-beam photoelectric photometer (E), 907

Astrotracker

UBVRI measurement for wide-band sensor magnitude (T), 2009 (L)

Atmosphere

Absorption

Attenuation of millimeter wavelength radiation by gaseous water (T), 1391

Near infrared, over 25-km horizontal path at sea level (E), 489

Photometric sensor star catalogs (T), 2009 (L)

Remote sensing of surface and cloud temperatures using the 899-cm⁻¹ interval (E/T), 911

Air, optical refractive index, dependence on pressure, temperature and composition (R, T), 51

Attenuation

Direct solar radiation up to 30 km and stratification of, in the the stratosphere (E), 197

Millimeter wavelength radiation by gaseous water (T), 1391 Backscattering, visible and infrared radiation by selected major cloud models (T), 1209

Brocken observation, quantitative (E), 2013 (L)

Cloud and fog size distribution by indirect measurements (T), 215

Earth, balloon observations, between 2100 cm⁻¹ and 2700 cm⁻¹ (E), 227

Gases, infrared absorption by overlapping bands (E), 481

Humidity measurement from solar radiation absorption (E), 1845

Lasers

Effects on beam propagation (E), 703

Propagation of, and nonlaser light (E), 1420 (L)

Wavelength dependence of the spectrum of beams (E), 163 (L)

Lower, optical effects of thermal structure in (E), 497 Optics

Balloon-borne grating spectrometer (R, E), 191

Fourier transform spectrometer—radiative measurements and temperature inversion (E/T), 347 (L)

Studies at Naval Research Laboratory (R), 2029

Planetary (E), 179

Reentry, 174 (B)

Scattering

Solar flux in middle ultraviolet (T/E), 373

Spectral radiance at 35 km in near ultraviolet, measurement (E), 1487

Seeing measurement by resistance analog (E/T), 1992 Sun

Solar atmosphere, 910 (B)

Radiation up to 30 km and stratification of attenuation components in the stratosphere (E), 197

Spectrometer, filter wedge, for field use (E), 1057

Transmission

Remote sensing of surface and cloud temperatures using the 899 cm⁻¹ interval (E/T), 911

Visible and infrared, 2020 (B)

Turbulence in optical surveillance system (T), 1984

Twilight, 2019 (B)

Upper, investigations at U. of Saskatchewan (R, E), 1609

Ultraviolet measurements in planetary (E), 397

Atomic Transition Probabilities

Bibliography, 1406 (B)

Elements hydrogen through neon, 1406 (B)

Attenuation

Artificial fogs in visible, near infrared and far infrared (E),

Attenuated Total Reflection (ATR)

Spectroscopy course, UCLA, 1558 (N)

Study of extremely small samples (T), 715

Aurora

Quadrant photometer of satellite-borne measurements (E), 1105

Autocollimator

Use in optical drill jig, 1585 (P)

Azimuth Control

Frictionless bearing for balloon (E), 346 (L)

Ballistic

Range application, time-resolving spectrograph for freeflight (E), 1195

Balloons

Borne

Diffusing system for infrared radiation from 1 μ to 5 μ (E),

Grating spectrometer (R, E), 191

Measurements of radiation emerging from earth's atmosphere (R, E/T), 221

Sun-seeker, improvements (E), 235

Telescopes, guidance by offset sun tracking (E/T), 213

Fourier spectrometry (E), 209

Frictionless bearing for (E), 346 (L)

High altitude, ultraviolet polarimetry using (E), 231

Radiance of earth between 2100 cm⁻¹ and 2700 cm⁻¹ (E), 227

Solar observation experiments, 361 (N)

Solar radiation up to 30 km (E), 197

Symposium, 4th AFCRL scientific, Wentworth, 238 (MR)

Telescope optics (E), 179

Bands

Models

Measurement accuracy of line intensities and mean absorption coefficients (T), 349 (L)

Noniosthermal radiating gases, further notes (E), 1423 (L)

Structure, interband magnetooptical studies of semiconductors and semimetals (R), 647

Barium Titanate

Ferroelectric anomalous shift of absorption edge under electric field (E), 1825

December 1967 / Vol. 6, No. 12 / APPLIED OPTICS 2205

Beams

Divergence test for ruby laser (E/T), 2192 (L) Divergence variations across plane interface (T), 2010 (L)

Bearings

Frictionless for balloons (E), 346 (L)

Beta Rays

Light source structure, 1586 (P)

Biography

Faraday, Michael, 631 Hahn, Otto, 779 (B) Helmholtz, Hermann von, 173 (B) Hulburt, Edward O, 2084 (N) Maxwell, James Clerk, 639 Meggers, William, 94 (N)

Birefringence

Induced, of glass laser rods pumped by flash lamps (E), 579 Quartz, variations (E), 1279 (L) Retardance meter design (E), 1773

Blackbody

Planck function approximations and optical pyrometry (T), 107

Source

High temperature (E/T), 357 (L)

Laboratory and satellite infrared spectrometer absolute calibration (E), 1183

Standards, new tungsten-filament lamp, of total irradiance (E), 101

Bolometers

Arrays, miniature optically immersed thermistor (E), 1327 Germanium, liquid He temperature, noise spectra (E), 576 (L) Semiconductor, noise reduction method, 1566 (P)

Books Reviewed

Advances in Microwaves, Vol. 1. Edited by Leo Young. Reviewed by M. A. Plonus, 2175

Advances in Optical and Electron Microscopy, Vol. 1. Edited by R. Barer and V. E. Cosslett. Reviewed by T. G. Rochow, 1042

Atomic and Space Physics. A. E. S. Green and P. J. Wyatt. Reviewed by S. Fred Singer, 383

Atomic Collisions: The Theory of Electron-Atom Collisions. Y. Y. Veldre. Reviewed by John W. Cooper, 910

Atomic Transition Probabilities. Vol. I: Elements Hydrogen through Neon, W. L. Wiese, M. W. Smith, and B. M. Glennon. Reviewed by F. M. Phelps III, 1406

Atmospheric Reentry. John J. Martin. Reviewed by D. J. Lovell, 174

Band Spectrum of Carbon Monoxide. Paul H. Krupenie. Reviewed by Thomas M. Dunn, 465

Basic Problems in Thin Film Physics. Edited by R. Niedermayer and H. Mayer. Reviewed by K. H. Behrndt, 442

Bibliography on Atomic Transition Probabilities. B. M. Glennon and W. L. Wiese. Reviewed by F. M. Phillips III, 1406

Chemical Analysis in Photography. G. Russell. Reviewed by D. R. White, 175

Coherent Optics and Holography, George W. Stroke. Reviewed by D. Gabor, 208

Conference on Photographic and Spectroscopic Optics. Tokyo and Kyoto, 1964. Reviewed by James B. Saunders, 177

Dielectrics and Waves. A. von Hippel. Reviewed by M. Mansel Davies, 384 Differential Space, Quantum Systems and Prediction. By Norbert Wiener, Armand Siegel, Bayard Rankin, and William Ted Martin. Reviewed by E. J. Post, 2020

Diffraction: Coherence in Optics. M. Françon. Reviewed by Edward O'Neill, 918

Diffraction Methods in Materials Science. J. B. Cohen. Reviewed by T. B. Rymer, 208

Dimensional Metrology Subject-Classified with Abstracts Through 1964. Compiled by I. H. Fullmer. Reviewed by E. G. Lowen, 1207

Discussion on Some Aspects of the Stratosphere, Mesosphere, and Lower Thermosphere. Proc. Royal Society of London. Reviewed by John Hampson, 864

Electron Optics. P. Grivet, M. Y. Bernard, F. Bertein, R. Castaing, M. Gauzit, and A. Septier. Reviewed by H. G. Cooper, 175

Encyclopedic Dictionary of Physics. Vol. 9. Multi'inqual Glossary. Editor-in-Chief, J. Thewlis; Glossary Editor and Associate Editor, A. R. Meetham; Associate Editor, R. C. Glass. Reviewed by Franklin S. Harris, Jr. 1169

Experimental Researches in Electricity. Michael Faraday. Reviewed by John N. Howard, 779

F-Centers in Alkali Halides. Supplement to Solid-State Physics. Jordan J. Markham. Reviewed by N. F. Mott, 1318

Feynman Lectures on Physics, III: Quantum Mechanics. R. P. Feynman, R. B. Leighton, and M. Sands. Reviewed by John N. Howard, 891

Fundamentals of Dimensional Metrology. T. Busch. Reviewed by Harry D. Polster 177

Generalized Harmonic Analysis and Tauberian Theorems. Norbert Wiener. Reviewed by Brian J. Thompson, 918

Generation at Optical Surfaces. Edited by K. J. Kumanin;
 translated by D. Finch. Reviewed by R. Kingslake, 2018
 Glass: Natur, Struktur und Eigenschaften. Horst Scholze.
 Reviewed by Norbert J. Kreidl, 208

Handbook of Laplace Transformations. Floyd E. Nixon. Reviewed by R. M. Langer, 860

Handbook of Military Infrared Technology. William L. Wolfe, Ed. Reviewed by John N. Howard, 2200

Hermann von Helmholtz. Leo Koenigsberger. Reviewed by Deane B. Judd, 173

High Energy Beam Optics. K. G. Steffen. Reviewed by E. J. Burge, 233

Industrial Stroboscopy. Gilbert Kivenson. Reviewed by W. Hyzer, 781

Infrared Instrumentation and Techniques. A. E. Martin. Reviewed by Paul A. Giguère, 780

Infrared Physics. J. T. Houghton and S. D. Smith. Reviewed by David R. Lide, Jr., 780

Infrared Reflectances of Metals at Cryogenic Temperatures— A Compilation from the Literature. P. F. Dickson and M. C. Jones. Reviewed by H. E. Bennett, 924

Lamps and Lighting. Edited by H. Hewitt and A. S. Vause. Reviewed by Willard Allphin, 1548

Laser. William V. Smith and Peter P. Sorokin. Reviewed by D. F. Nelson, 1062

Laser Cancer Research. L. Goldman. Reviewed by Jurgen R. Meyer-Arendt, 207

Laser: Lichtverstärker und Ozillatoren. D. Röss. Reviewed by H. E. Gumlich, 226

Laser Receivers, Devices, Techniques, Systems. Monte Ross. Reviewed by O. E. De Lange, 442

Laseri. I. Cucurezeanu. Reviewed by John N. Howard, 891
Light and Vision. Conrad G. Mueller, Mae Rudolph, and the
Editors of Life. Reviewed by C. J. Bartleson, 1041

Light: Physical and Biological Action. H. H. Seliger and W. D. McElroy. Reviewed by George M. Curry, 384

Light-Sensitive Systems; Chemistry and Applications of Nonsilver Halide Photographic Processes. Jaromir Kosar. Reviewed by W. S. Shoemaker, 891

Luminescence: Supplement 1 to Optics and Spectroscopy. Edited by L. M. Matarrese. Reviewed by Gordon E. Gross, 1962 Machine Devices and Instrumentation. Nicholas P. Chironis.

Reviewed by R. D. Geiser, 1061

Manual on Recommended Practices in Spectrophotometry. Sponsored by ASTM Committee E-13 on Absorption Spectroscopy. Reviewed by Harry K. Hammond III, 173

Measurement of Optical Radiations. G. Bauer. Reviewed by Henry J. Kostkowski, 176

Measures for Progress—A History of the National Bureau of Standards. Rexmond C. Cochrane. Reviewed by E. U. Condon, 9

Middle Ultraviolet; Its Science and Technology. Edited by A. E. S. Green. Reviewed by R. Douglas Rawcliffe, 1075

Modern Optical Engineering: The Design of Optical Systems. Warren J. Smith. Reviewed by Lucien M. Biberman, 905

Modern Optics. Earle B. Brown. Reviewed by Henry E. Breed, 226

Molecular Spectra and Molecular Structure. Vol. III: Electronic Spectra and Electronic Structure of Polyatomic Molecules. Gerhard Herzberg. Reviewed by W. C. Price, 1068

Molecular Spectroscopy: Supplement 2 to Optics and Spectroscopy. Edited by C. W. Garland. Reviewed by Gerald W. King, 1067

Mössbauer Effect Methodology, Vol. 2, Edited by Irwin J. Gruverman. Reviewed by Rolfe H. Herber, 1405

New Feundations of Quantum Mechanics. Alfred Landé. Reviewed by John N. Howard, 171

Otto Hahn, a Scientific Autobiography. Translated and edited by Willy Ley. Reviewed by Edwin M. McMillan, 779

Optical Alignment (With the Rank Taylor Hobson Micro-Alignment Telescope and Its Accessories). Reviewed by Leslie O. Vargady, 917

Optical and Electro-optical Information Processing. Edited by James T. Tippett, David A. Berkowitz, Lewis C. Clapp, Charles J. Koester, and Alexander Vanderburgh, Jr. Reviewed by Robert J. Potters, 207

Optical Scintillation: A Survey of the Literature. J. R. Meyer-Arendt and C. B. Emmanuel. Reviewed by J. Allen Hynek,

872

Optique, science de la vision. Vasco Ronchi. Reviewed by W. E. K. Middleton, 2139

Photochemistry, J. C. Calvert and J. N. Pitts, Jr. Reviewed by David Mark Golden, 1076

Photographic Systems for Engineers. Edited by F. M. Brown, H. J. Hall, and J. Kosar. Reviewed by Earle B. Brown, 1317

Physical Optics in Photography. Georg Franke. Reviewed by S. H. Brewer, 466

Physics of Thin Films, Vol. 3. Edited by G. Hass and R. E. Thun. Reviewed by Roland Jacobsson, 2175

Practical Photomicrography. J. Bergner, E. Gelbke, and W. Mehliss; translated by K. S. Ankermit. Reviewed by Mary L. Willard, 2139

Principles of Color Technology. Fred W. Billmeyer, Jr. and Max Saltzman. Reviewed by Dorothy Nickerson, 896

Problems in Undergraduate Physics. Vol. III: Optics. By V. L. Ginzburg, L. M. Levin, D. V. Sivukhin and E. S. Chetverikova; translated by D. E. Brown; translation edited by D. ter Haar. Reviewed by Stanley S. Ballard, 2003

Problems in Undergraduate Physics. Vol. IV: Molecular

Physics, Thermodynamics, Atomic and Nuclear Physics. V. L. Ginzburg, L. M. Levin, M. S. Rabinovich, and D. V. Sivukhim. Reviewed by Stanley S. Ballard, 2014

Problemes d'Optique. M. Rousseau and J. P. Mathieu. Reviewed by Sumner P. Davis, 1041

Problemes météorologique de la stratosphere et de la mèsosphère. M. Nicolet. Reviewed by John Hampson, 864

Progress in Optics. Volume V. E. Wolf, Ed. Reviewed by H. H. Hopkins, 781

Radiative Contributions to Energy and Momentum Transfer in a Gas. D. H. Sampson. Reviewed by Richard M. Thomas, 2200

Recent Advances in Optimization Techniques. Abrahim Lavi and Thomas P. Vogel. Reviewed by O. N. Stavroudis, 488

Reflectance Spectroscopy. Wesley W. Wendlandt and Harry G. Hecht. Reviewed by S. Thomas Dunn, 176

Selected Papers on the Transfer of Radiation. Edited by Donald H. Menzel. Reviewed by Gilbert N. Plass, 1062

Solar Atmosphere. H. Zirin. Reviewed by J. M. Beckers, 910 Spectrochemical Analysis: Optical Spectrometry, X-Ray Fluorescence, and Electron Probe Microanalysis (July 1964-June 1965). Edited by Bourdon F. Scribner. Reviewed by V. A. Fassel, 172

Structure of Glass. Volume 6: Properties, Structure, and Physical-Chemical Effects. Volume 7: Methods of Studying the Structure of Glass. Edited by E. A. Porai-Koshits. Reviewed by G. P. Smith, 1208

System of Optical Design. Arthur Cox. Reviewed by R. E. Hopkins, 487

Tables of Light Scattering. Part I: Tables of Angular Functions. K. S. Shifrin and I. L. Zelmanovich. Reviewed by R. Penndorf, 2019

Tabulation of Published Data on Soviet Electron Devices Through June 1965. Charles P. Marsden. Reviewed by G. W. Goetze. 172

Theorie et calcul des figures de diffraction de révolution. A. Boivin. Reviewed by E. H. Linfott, 172

Theory of the Photographic Process. C. E. K. Mees, edited by T. H. James. Reviewed by Lewis Larmor, 917

Thermodynamics of Certain Refractory Compounds. Edited by Harold L. Schick. Reviewed by Eugene S. Domalski, 892

Twilight—A Study in Atmospheric Optics. Georgii Vladimirovich Rozenberg; translated by Richard B. Rodman. Reviewed by Edward V. Ashburn, 2019

Ultraviolet and Visible Absorption Spectra for 1960-1963, Index. Herbert M. Hershenson. Reviewed by William G. Elliott, 1711

Visible and Infrared Transmission in the Atmosphere. Vladimir E. Zuev. Reviewed by John N. Howard, 2020

Wave Propagation and Turbulent Media. R. N. Adams and E. D. Denman. Reviewed by V. I. Tatarskii, 2018

Wavelength Standards in the Infrared. K. Narahari Rao, Curtis J. Humphreys, and D. H. Rank. Reviewed by M. Kent Wilson, 466

X-Ray Diffraction Tables. J. H. Fang and F. Donald Bloss. Reviewed by Fred Ordway, 917, 1220

Brillouin Scattering

Laser use in (E), 1605

Cadmium Telluride

Electrooptic constant (E), 1276 (L)

Calcium Fluoride

Normal emissivity in infrared at elevated temperatures of crystalline (E), 119

Cameras

Improvement of imagery in rotating mirror, by helium atmosphere (E), 160 (L)

Canada

Opties in (R), 1589

Carbon Dioxide

Spectral emissivity by statistical model in 4.3-μ band at elevated temperatures (T), 1049

Carbon monoxide

Band spectrum, 465 (B)

Cardiovascular Studies

Fiber optics oximeter-densitometer (E), 565

Cassegrain System

Light shield design (T), 1063

Cathode Ray Tube

Light intensity increase, 1566 (P)

Cavities

Laser mirror transmissivity optimization to high power (T), 1434 (L)

Measurement of ruby laser losses by Fabry-Perot resonance (E), 421

Multiple pass effects in high efficiency laser pumping (T/E), 437

Transverse mode structure in unstable (E), 845

Cer-Vit

Smoothness and thermal stability (E), 1275 (L)

Use in optical cavities (E), 1138 (L)

Use in low expansion reference, (E), 1138 (L)

Cesium lodide

High purity powdered, as high reflectance infrared diffused (E), 1280 (L)

Character Recognition

Alphanumeric diffraction patterns (E), 170 (L)

Computed generated spatial filter (T/E), 1139 (L)

Devices, 526 (P)

Storage capacity of optically formed spatial filter (T/E), 1359 System, 1142 (P) $\,$

Chemical Analysis

In photography, 175 (B)

Chlorine

Ultraviolet filtering properties (E), 165 (L)

Choppers

Interferometer-spectrometer used as (T), 1780

Torque requirements for a rotating (E), 778 (L)

Clouds

Models, backscattering and extinction of visible and infrared radiation (T), 1209

Size distribution by indirect parameter measurements (T), 2125

Spectral measurements from 1.6 μ to 5.4 μ (E), 1399

Temperatures using 899 cm⁻¹ interval (E/T), 911

Coherence

Atmospheric propagation of laser and nonlaser light (E), 1420 (L)

Beam, phase fluctuations after passing turbulent layer (E),

1273 (L)

Degree of, image of quasi-monochromatic source (E), 1403

Imaging, and theorem of Dirichlet (T), 323

In optics, 918 (B)

Object-image relationships in scattered laser light (E), 163 (L)

Optical superheterodyne receiver (E) 1333

Optical Society of America Technical Group, 455 (N)

Optics and holography, 208 (B)

Scattering of light (E), 170 (L)

Spatial, improvement in Michelson interferometer (E/T), 873 Two dimensional image quality improvement in coherent

optical systems (E/T), 1905

Wavefronts, recording parameters of spatially modulated (E/T), 851

Collimators

Alignment for axial bore, 527 (P)

Apparatus to reduce beam size, 595 (P)

Color

Discrimination apparatus, 594 (P)

History of physiological optics at National Bureau of Standards (R), 13

Image in x-ray system, 1518 (P)

Integrity preservation in multistage photography (T/E), 2158

Interference in films by small crystals, 593 (P)

Intersociety, council, 2022 (MR)

Measurement seminar, 1308 (N)

Multicolor imaging from holograms on two-dimensional media (E), 1091

Optical Society Technical Group, 1624 (MR)

Pattern display system, 593 (R)

Sorting by spectral reflectance differences, 594 (P)

Sorting photoelectrically, 593 (P)

Technology, 896 (B)

Temperature, radiation pyrometer, 1586 (P)

Colorimetry

Catadioptric illumination, 592 (P)

Tri-stimulus analyzer, direct reading, 595 (P)

Visual comparator, 594 (P)

Communications

Laser pulse system, 1522 (P)

Compensator

Cds Soleil for near infrared (E), 2198 (L)

Computers

Automatic reduction of spectroscopic data (E), 2085

Fast Fourier transform for unequal number of input and output points (T/E), 1432 (L)

Operated following ellipsometer (E), 1673

Optical analog, device for spectrum analysis of applied signal, 594 (P)

Optical computations using a time sharing (E), 585 (L)

Optical readout using Faraday effect, 118 (P)

Processing of spectrograms for absolute intensities (E), 1507

Rapid precision wavelength measuring apparatus (E), 807
Semisutomatic generation of optical prototypes (T/E), 969

Semiautomatic generation of optical prototypes (T/E), 969 Telsim, language without programer, 2114 (N)

Contributors

Information for, 100

Convection

Optical effects of thermal structure in lower atmosphere (E), 497

2208 APPLIED OPTICS / Vol. 6, No. 12 / December 1967

Cotton Mouton Effect

Bibliography, 627

Counters

Electrooptical, 1518 (P)

Optoelectronic binary circuit, 1518 (P)

Particles in liquids, photoelectrically, 1544 (P)

Crystals

Growth by temperature gradient freeze method, 1522 (P)

Silicon, growth technique, 1518 (P)

Structure of auramine perchlorate (E), 2091

Cyclotron Resonance

Bibliography of magnetooptics of solids, 620

Data

Physical science, NBS standard reference system, 60 (N)

Data Processing

Correlation function spatial filtering with incoherent light

(T/E), 1272 (L)

Diffraction patterns of Chinese characters (E), 1421 (L)

Spatial filter small displacement effects (T/E), 1221

Spectroscopy, automatic reduction (E), 2085

Data Transmission

Fiber optics application, 1586 (P)

Deconvolution Techniques

Fabry Perot spectrometer application (T/E), 1701

Densitometer

Automatic recording and analyzing, 880 (P)

Fiber optics oximeter for cardiovascular studies (E), 565

Detectivity

Electron beam scanning types of image tubes (T), 149

General relation for Dank* (T), 574 (L)

Detectors

Circuits, infrared, practical design (E), 1189

Heterodyne, narrowband optical (E), 577 (L)

Infrared

Cryogenic cooled photoconductive cell, 1586 (P)

General relation for $D_{\lambda\rho k}^*$ (T), 574 (L)

Germanium immersed, small, 1543 (N)

Light, photomultiplier properties (R), 979

Optical, resonance changes gas tube conductivity, 1526 (P)

Photomultipliers as quantum counters (E), 161 (L)

Responsivity calibration, lumen illumination in (E), 1575 (L)

Ionization chamber and thermopile for extreme uv (E), 1886 Semiconductors

Particle sensors, 1566 (P)

Using free carrier absorption, 1522 (P)

Spectral region, graph, 660

Studies at Naval Research Laboratory, 2029

Thermopiles, gas-filled, improved responsivity (E), 2196 (L)

Ultraviolet

Extreme, photomultipliers (E), 385

For combustion control, 1566 (P)

Devices

Machine, and instrumentation, 1361 (B)

Dictionary

Encyclopedic, multilingual glossary, 1169 (B)

Multilingual, molecular spectroscopy, 1068 (B)

Dielectrics

Waves, and 384 (B)

Diffraction

Fiber mosaics (E), 582 (L)

Figures of revolution, theory and calculation, 172 (B)

Fresnel patterns, correlation use in signal detection (E/T),

Grating, use in controlling ruling engine (E), 1861

Images of truncated, one-dimensional periodic targets (T), 545

In optics, 918 (B)

Methods in materials science, 208 (B)

Patterns of alphanumeric characters (E), 170 (L)

Patterns of Chinese characters (E), 1421 (L)

Progress in French Canada (R, T/E), 1625

Zone plate theory based on holography (T), 1415 (L); 1415 (L)

Diffuser

Infrared, high reflectance using CsI (E), 1280 (L) System, balloon-borne for infrared (E), 1424 (L)

Digital Storage

Device, 526 (P)

Dirichlet Theorem

Coherent imaging (T), 323

Discharges

Conductivity variation in, as detector, 1526 (P)

Dispersion

Infrared, in solids, measurement by small particle scattering (E), 925

Measurement with hakenmethode (R, T), 1715

Display

Stereoscopic, using rapid varifocal mirror oscillations (E), 1085

Doppler Line Widths

Electronic determination using Fabry-Perot interferometers (T), 287

Duct

Transmittance properties with collimated beam (T), 1767

Earth

Radiance and reflectivity relations to silicon detector response (T), 2110

Spectral measurements from 1.6 μ to 5.4 μ of natural surfaces (E), 1399

Education

Audio-visual fellowships, 1304 (N)

Engineering optics courses, 1088 (N)

Glassworkers and technicians in United Kingdom, 1501 (N)

In optics, 402

Modern optics demonstration kit, 1486 (N)

Optics

Brazil, 456 (N)

Course for teachers, U. Michigan, 1402 (N)

Course, U. Rochester, 480 (N)

Programs in universities, 1502 (N)

Undergraduate and graduate work in, 1194 (N)

THEMIS program, 954 (N)

Electricity

Faraday researches, 779 (B)

December 1967 / Vol. 6, No. 12 / APPLIED OPTICS 2209

Electrodes

Phenomena in high current, 20-nanosecond spark (E), 2176

Electroluminescence

Elements in fast switching, bistable flip flops, 1518~(P) Mark sensing, 118~(P)

Electrons

Atom collisions, theory, 910 (B)

Collisions, data collection, 93 (B)

Devices, Soviet published data, 172 (B)

Microscopy

Advances, 1042 (B)

Scanning, 812 (N)

Nuclear hyperfine interactions in spectroscopy, conference, 830 (MR)

Optics, 175 (B)

Paramagnetic resonance, bibliography, 628

Probe microanalysis, 172 (B)

Transport, data collection, 93 (N)

Electrooptics

Circuits with improved response speed, 526 (P)

Coefficients of KDP and quartz (E), 778 (L)

Devices using Stark shift, 1518 (P)

Digital control of focal distances (T), 549

Information processing, 207 (B)

Linear effect, potassium niobate crystals (E), 2007 (L)

Shutter for flashblindness controlling device, 1526 (P)

Electrophotography (see also Xerography)

Copying method, 1526 (P)

Electrostatic method using shaped electrodes, 1585 (P)

Etch resist method using electrostatic image developer composition, 1518 (P)

Material and process, 1522 (P)

Method of preparing letter-press plates, 1518 (P)

Photoconductive compost

Photoconductive composition and coated sheets, 1586 (P)

Photoconductive layers for, 1518 (P)

Reproduction material, 1585 (P), 1585 (P)

Ellipsometer

Computer operated, following (E), 1673

Mechanical modulator for use with (E), 1279 (L)

Thin film refractive index and thickness using (T), 168 (L)

Emission, Emittance

Spiking, from many-element lasers (E), 1243

Transparent materials at low temperature, total hemispherical (E), 919

Emissivity

Blackbody radiation source, high temperature (E/T), 357 (L) Spectral, calculations by statistical model of 4.3 μ bands CO₁ at high temperatures (T), 1049

English

Scientific writing, 1592 (N)

Technical journals, 1468 (N)

Errata, 1220, 1436, 1584

Evaporography

Image quantity (E/T), 1851

Expooptics

Expo 67, 1143 (N); 1294; 2016 (N)

Soviet, 2016 (N)

Extinction

Visible and infrared radiation by clouds (T), 1209

Eyes

He-Ne laser hazards, worst case analysis (T), 1973 Laser radiation protection, 1486 (N)

F-Centers

Alkali-halides, 1318 (B)

Fabry-Perot

Fringe enhancement (E), 1217

Interferometers

Electronic determination of line widths (T), 287

Multilayer reflecting surfaces (E/T), 2003 (L)

Resolving power, visual observations of absorption spectra (T), 1134 (L)

Testing (E), 575 (L)

Two-channel, for doppler temperature measurement (E),

Resonance, use in measurement of ruby laser cavity losses (E), 421

Spectrometry

Deconvolution technique for (T/E), 1701

Improvement in (E/T), 467

Faraday

Michael, biography, 631

Effect

Magnetooptics of solids, bibliography, 603

Optical rotation device using ferromagnetic chromium trihalide, 592 (P)

Use in magnetic readout from storage medium, 528 (P)

Use in optical readout system, 118 (P)

Rotation

Magnetooptical experiments on broad absorption bands in solids (E/T), 669

Methods of measuring, (E), 668

Rotating polarizer for measurements (E), 772 (L)

Solid state plasmas at microwave frequencies (E/T), 875

Ferroelectric-Paraelectric Transition

SbSI temperature dependence of the refractive index using (E), 1059

Fiber Optics

Diffraction (E), 582 (L)

Optical collimator, 1586 (P)

Oximeter-densitometer for cardiovascular studies (E), 565

Plastic, ruby laser radiation transmission (E), 1269 (L)

Tape sensor, 1544(P)

Films

Anomaly in spectral data on hypersensitized (E), 1278 (L)

Dielectric, effective refractive index in thickness measurement (T/E), 727

X-ray calibration in 5 keV to 1.3 MeV region (F), 2136

Filters

Analysis of saturable absorbers (T), 947

Dispersive type using glass fibers immersed in a liquid, 528 (P)

Frustrated total reflection

Modified, analysis (T), 355 (L)

Theory (T), 200 (L); (T), 2002 (L)

Holograms, properties (T), 857

Infrared, properties with temperature and angle of incidence variation (T/E), 1343

Infrared, far

Bandpass and measurements on reciprocal grid (E), 893

Metal mesh interference (E), 1353

Transmission, heavily doped silicon for low temperature (E), 978 (L)

Interference

Metal-dielectric, effective refractive index (T/E), 471

Multilayer, with narrow stop bands (T), 297

Reflecting in ultraviolet and infrared, 592 (P)

Optical

Optical tunneling and application to (T), 897

Spectral, narrow, optimization for nonparallel monochromatic radiation (T) 1201

Sharp cut off, 595 (P)

Ultraviolet

Properties of alkali-halide vapors and chlorine (E), 165 (L)

Flames

Analysis, air-cooled burners to minimize sample pressure variations, 528 (P)

Sensor using ultraviolet, 1566 (P)

Fluorescence

Detector for ultraviolet, 595 (P)

Organic materials for brightening, 1587 (P)

Fluorometer

Double beam, using double beam lamp, 592 (P)

Focusing

Automatic (T/E), 1559

Digital control of focal distances (T), 549

Fogs

Attenuation in visible, near and far infrared (E), 1497

Scattering of laser and monochromatic incoherent light (E), 1969

Size distribution by indirect parameter measurement (T), 2125

Fourier Transform Spectroscopy

Dispersive convergence correction (T), 980 (L)

Fast, for unequal number of input and output points (T/E), 1432 (L)

History, 692

Magnetooptical studies of solids (E), 685

Radiative measurements and temperature inversion (E/T), 347 (L)

Rotational line strengths in HCl measurements with asymmetric techniques (E), 1527

Signal and noise in (T), 1580 (L)

Spectrometer, 1120 (P)

Spectrometer operation, double beam (T/E), 587 (L)

Fresnel Zone Plates

Efficiency (T), 2011 (L)

Generation (E), 1433 (L)

Patterns, variable (T/E), 1567

Progress in French Canada (R, T/E), 1625

Theory based on holography (T/E), 317; (T) 1415 (L)

Fringes

Fabry-Perot, enhancement (E), 1217

White light, method for finding for interferometers (E), 170 (L)

Frequency Tran. lation

Laser harmonics useful for (T), 1430 (L)

From the Editor, 106, 219, 435, 638, 792, 1009, 1170, 1331, 1468, 1592, 2000, 2103

Furnace

King, modified for absorption spectroscopy of small samples (E), 1299

Gaussian Beam

Propagation, geometrical approach (T), 747

Geometrical Optics

Aberration coefficients, new derivation for third-order (T), 765

Aberration theory of diffraction grating (T), 1691

Afocal correctors for paraboloidal mirrors (T), 1227

Gaussian beam propagation treatment (T), 747

Mangin mirror, color-corrected (T), 963

Object-image relationships in scattered laser light (E), 163 (L)

Operator formulation of plane mirror systems (T), 537

Out-of-focus images; properties, uses and a geometrical explanation (T/E), 1559

Semiautomatic generation of optical prototypes (T/E), 969

Vertical penetration of collimated beam normally incident on

ocean surface (T), 737

Viewability regions for pair of intersecting semiinfinite plane mirrors (T), 773 (L)

Germanium

Bolometer, noise spectra of liquid He temperature (E), 576 (L) Detector, copper-doped, infrared spectroscopy (E), 1131 (L)

Optical constants (E), 61

Retroactive index in far infrared (E), 1889

Getters

Activated uranium, for rare gas lasers (E), 2194 (L)

Glass

Bronze-smoke ophthalmic, 1587 (P)

Damage induced by linear absorption of laser radiation (E),

164 (L)

Defect detection, automatic, 594 (P)

Infrared transmitting, 234 (N); 594 (P) Lanthanum borate, optical, 1526 (P)

Meeting, American Ceramic Society, 330 (MR)

Multiple prism surface for better illumination, 593 (P)

Nature, structure and properties, 208 (B)

Phototropic

Composition, 1566 (P)

Controlled transmission, 593 (P)

Sandwiches for instrument windows, 1587 (P)

Strontium and gallium for infrared transmission, 594 (P)

Structure, properties and methods of studying, 1208 (B)

Tan ophthalmic, 1587 (P)

Graphite

Arc, spectral radiance of low current (E), 95

Gratings

Diffraction

Blazed for high orders, simple order sorter (E), 1655

Geometrical optics aberration theory (T), 1691

Reflecting, minimizing anomalies, 118 (P)

Granularity

Measurement using photoconductive cells (E), 1421 (L)

Grid

Reciprocal, far infrared bandpass filters and measurements on (E), 893

December 1967 / Vol. 6, No. 12 / APPLIED OPTICS 2211

Guidance (see Tracking)

Hahn, Otto

Scientific autobiography, 779 (B)

Hakenmethode

Anomalous dispersion, study of (R), 1783 Oscillator strength measurements (R, T), 1715

Harmonic Analysis

Generalized, and Tauberian theorems, 918 (B)

Haze

Comparison of computed and experimental spectral transmission (E), 929

Helicons

Bibliography, 623

Solid state plasmas at microwave frequencies (E/T), 675

Helmholtz, Herman von

Biography, 173 (B)

Heterodyning

Coherent detection in real-time electrooptical signal processors (E/T), 1367

Detection, narrowband optical (E), 577 (L)

Laser communication system, 1586 (P)

Photon-counting and, receivers for optical communications (T), 245

Receiver, optical (E), 1333

History

Faraday, Michael, 631

Fourier transform spectroscopy, 692

Maxwell, J. C., papers, 639

National Bureau of Standards

History of, 9 (B)

Optics (R), 1

Physiological optics (R), 13

Naval Research Laboratory, optics (R), 2029

Netherlands optics, 785

Space research optics (R), 2044

USSR, optics and spectroscopy last 50 years (R), 1783

Voigt effect, 674

Holograms

Binary Fraunhofer, computer generated (E/T), 1739

Double images in copy (E/T), 588 (L)

Image scanning by rotation of (T/E), 1531

Moiré interferometry for transparent objects (E), 1535

Multicolor imaging on two dimensional media (E), 1091

Multicolor white light reconstructed (E), 1255

Photographic plate interference fringe elimination by backing (E), 977

Spatial filters processed and copied in position (E), 170 (L)

Techniques for particle size analysis (E), 519

Temporal filtering properties (T), 857

Holography

Acoustical, international symposium, 2027 (N)

Coherent optics and, 208 (B)

Computer generated spatial filter, applied to code translation (T/E), 1139 (L)

Copying by Gabor, of transparencies (T), 1749

Emulsion shrinkage effects on image space (T/E), 1270 (L)

Film nonlinear effects (E/T), 1755

Fractional-fringe plasma interferometry (E), 1407

Fringes improvement by feedback control (T/E), 1097

Gas laser source for (E/T), 2197

Increased image separation by total reflection (E), 2004 (L)

Increased range coverage (E), 2005 (L)

Interferometry, low angle, using Tri-X Pan film (E), 1418 (L)

Light pipe (E), 1272 (L)

Microwave with optical reconstruction (E/T), 1943

Moiré patterns; application to aerodynamics (E), 1428 (L)

Multicolor wavefront reconstruction (E/T), 529

Optical Society of American Technical Group, 455 (N)

Photochromic glass, information storage capacity (E/T), 1428 (L)

Progress in French Canada (R, T/E), 1625

Pulsed light, application to aerodynamics (E), 981 (L)

Quality of copies and effect of two parameters (E), 1947

Recording parameters of spatially modulated coherent wavefronts (E/T), 851

Storage capacity of optically formed spatial filter for character recognition (T/E), 1359

Three beam, interferometry (E/T), 1665

Tool in testing of large aperture optics (E), 1267

Two-dimensional image quality improvement in coherent optical systems (E/T), 1905

Zone plate efficiency (T), 2011 (L)

Zone plate theory based on (T/E), 317; 1415 (L); 1415 (L).

Hydrogen

Atomic, interaction with Lyman α radiation experiments (E), 167 (L)

Spectra at low temperatures, infrared and Raman (E), 1597

Hydrogen Chloride

Rotational line strength measurement by asymmetric Fourier transform techniques (E), 1527

Illumination

Interior lighting evaluation on visual criteria (E), 1443

International Commission (CIE)

Description, 1477 (N)

16th Session, Washington, D. C., 1478 (N)

Image Converter

Infrared, 593 (P)

Rugged, 595 (P)

Image Evaluation

Optical system limitations for images of many discrete elements of area (T), 1383

Image Improvement

Helium atmosphere in rotating mirror cameras (E), 160 (L)

Two-dimensional in coherent systems (E/T), 1905

Image Intensifier

TV camera system (T), 2179

Image Reflectivity

Photometer, 880 (P)

Image Scanning

Rotation of hologram (T/E), 1531

Three-beam photoelectric photometer for astronomy (E), 907

Image Storage

Capacity of photochromic glass, determination (E/T), 1428 (L)

Tube, rugged, 595 (P)

Image Transmission

System using light dispersion, 594 (P)

Image Tubes

Detectivity of electron beam scanning types (T), 149

Infrared, using pyroelectric detectors, 1566 (P)

Intensifier, rugged, 595 (P)

Nondestructive readout, 595 (P)

Storage layer and storage tube, 1120 (P); 1120 (P)

Image Velocity

Sensing with moving reticle scanners (T), 1387

Imaging Technique

Computerized seminar, 2023 (MR)

Information

For contributors, 1844

Handling in USSR, 2015 (N)

Retrieval, apparatus of the peekaboo type, 528 (P)

Storage, using anisotropy of color centers in alkali halide crystals (T), 2197 (L)

Information Processing

Computed generated binary Fraunhofer hologram (E/T), 1739

Computed generated spatial filter (T/E), 1139 (L) Optical Society of American Technical Group, 455 (N)

1624 (N)

Optical, metachromatic material use for spatial filters, 118 (P)

Optical, 207 (B)

Reactive optical (T) 1571; (E/T), 1761

Signal detection by correlation of Fresnel diffraction patterns (E/T), 2171

Infrared

Absorption

Overlapping bands of atmospheric gases (E), 481

Pressure-induced (E) 1597

Asymmetric Fourier transform technique for rotational line strengths (E), 1527

Atmosphere, transmission, 2020 (B)

Balloon-Borne

Diffusing system from 1 μ to 5 μ (E), 1424 (L)

Grating spectrometer (R,E), 191

Radiance of the earth between 2100 cm⁻¹ and 2700 cm⁻¹ (E), 227

Telescope optics (E), 179

Band models for nonisothermal radiating gases (E), 1423 (L)

Cesium

Halide window polishing (E), 1583 (L)

Iodide, powdered as high reflectance diffuser (E), 1280 (L)

Detectors

Circuits, practical design (E), 1189

Miniature optically immersed thermistor bolometer arrays (E), 1327

Dispersion, measurement in solids by small particle scattering (E), 925

Emissivity, normal, at elevated temperatures of crystalline calcium fluoride (E), 119

Far

Attenuation by fogs (E), 1497

Bandpass filters and measurements on a reciprocal grid (E), 893

Heavily doped silicon as low temperature transmission filter (E), 978 (L)

Magnetooptical studies of solids using Fourier transform spectroscopy (E), 685

Metal mesh interference filters (E), 1353

Refractive indices of germanium, silicon, and fused quartz (E), 1889

Spectral purity for grating spectroscopy (E), 1259

Filter

Characteristics on variation of angle of incidence and temperature (T/E), 1343

Wedge spectrometer for field use (E), 1057

Fourier spectrometry from balloons (E), 209

Glasses, transmitting, 594 (P), 594 (P)

Image system using pyroelectric detectors, 1566 (P)

Image tube, 593 (P)

Instrumentation and techniques, 780 (B)

Lattice absorption in finite crystals

Lunar mapper for thermal and composition studies, earthbased (E), 1111

Military technology handbook, 2200 (B)

Modulator

Carrier injection, 1526 (P)

Field-induced free carrier absorption (E/T), 1033

Moon spectra, emissivity in 8-13 μ for two surface differential comparisons (T/E), 1981

Near

Atmospheric absurption over 25-km path at sea level (E), 489

CdS Soleil compensator (E), 2198 (L)

Four-pass high resolution spectrometer (E), 1295

Water vapor absorption (T/E), 709

Imagin, nonhomogeneity signal cancellation, 1585 (P)

Optical absorption cell, 1587 (P)

Optical systems limitation for images of many discrete elements

of area (T), 1383

Photodetector, cryogenically cooled, 1586 (P)

Photodiodes, narrow spectral response (T), 1777

Physics, 780 (B)

Reflectance

Metals at cryogenic temperatures, 924 (B)

Natural surfaces and clouds from 1.6 µ to 5.4 µ (E), 1399

Tektites (E), 586 (L)

Thermal change in nondispersive refractive index of optical materials (E/T), 1513

Sea Temperature Measurement with airborne radiometer (E),

Spectra, at low temperatures (E), 1597

Spectrometer

Littrow-McCubbin high resolution (E), 457

Operating parameter optimization (R, E), 257

Synchronized high speed scanning (E), 885

Spectrophotometer, measurement of cell thickness in (T), 477

Spectroscopy, with copper-doped germanium detector (E), 1131 (L)

Transmission polarizers by photolithography (E/T), 1023

Wavelength standards, 466 (B)

Instrumentation

Machine devices and, 1061 (B)

Optics, meeting, 322 (MR)

Science, research conference, 1096 (N)

Insulators

Optical Verdet coefficient determination (R, T/E), 661

Integrating Sphere

Five-meter (E), 757

Generalized theory (T), 125

Screenless (T), 1138 (L)

Interference

Coherence degree in image of quasi-monochromatic source (E), 1403 Corpuscular interpretation of several wave experiments (T), 2196 (L)

Frustrated total internal reflecting filter theory (T), 1200 (L); (T), 1201 (L)

Effective refractive indices of metal-dielectric filters (T/E), 471

Multilayer filters with stop bands (T), 297

Multiple beam, in opaque photocathodes (T), 356 (L)

Interferometers

Beat-frequency with moving mirror (E), 160 (L)

Capable of measuring small optical path differences, new (E/T), 137

Compact, for lens and surface testing (E), 803

Differential, seeing meter (E), 1136 (L)

Fabry-Perot

Electronic determination of doppler line widths (T), 287

Moiré fringe method of scanning (T/E), 1659

Resolving power, used for visual observations of absorption spectra (T), 1134 (L)

Spectrometry, improvements (E/T), 467

Testing (E), 575 (L)

Two-channel for measurement of doppler temperatures (E), 1205

Far infrared index of refraction measurement of germanium silicon and fused quartz (E), 1889

Fourier spectrometer

Balloon operation (E), 209

Double beam operation (T/E), 587 (L)

Holographic, three-beam (E/T), 1665

Laser unequal path, for optical shop (E), 1237

Lateral wavefront shearing, with variable shear (T/E), 1934

Lloyd, for flatness testing (E/T), 1707

Mach-Zehnder, astigmatism (E), 773 (L); (T/E), 1583 (L); 1583 (L); 1583 (L)

Michelson, improvement of spatial coherence in (E/T), 873 Monochromator spectral modulation transfer function by polarization (E), 1523

Multiple beam, for use with spherical wavefront (E), 1924

Optical, flat contour determination (E), 1917

Scanning, confocal resonator production (E), 1930

Spectrometer, used as optical chopper (T), 1780

Twyman-Green, multipass (E), 1425 (L)

White light fringes, method for finding (E), 170 (L)

Interferometry

Application of pulsed light holography to aerodynamics (E), 981 (L)

Fast Fourier transform for unequal number of input and output points (T/E), 1432

Hologram-moiré, for transparent objects (E), 1535

Holography as tool for testing of large aperture optics (E), 1267

Laser, electronic quadrature technique (E), 1128 (L)

Low angle holographic, using Tri-X Pan film (E), 1418 (L)

Metal mesh interference filters for far infrared (E), 1353

Multiple-scan, for infrared spectral reflection of minerals and rocks (E), 1503

Physical processes studied with, and crossed spectrograph (T/E), 1853

Plasma, fractional-fringe holographic (E), 1407

Precise measurement of planeness (E/T), 1077

Progress in French Canada (R, T/E), 1625

Resonator modes in submillimeter wave lasers (E), 827

Schlieren, criteria for quantitative (E), 731

Testing of quadric surfaces, 1526 (P)

Two-beam, signal and noise in (T), 1580 (L)

Upper atmosphere studies (R, E), 1609

Wavefront shearing, simple, inexpensive (E), 1581 (L)

Ionic Beams

Source, spectroscopic properties (E), 1309

Ionization Chambers

Absolute detectors in extreme uv (E), 1886 Figuring of paraboloids (E), 2010 (L)

lons

Crystals, excited metastable states, spectrometer for absorption studies (E), 877

Irradiance

Spectral, prism and filter spectroradiometric techniques (E), 1479

Total, new tungsten-filament lamp standards (E), 101

Kalvar Film

Photographic recording medium for 10.6- μ laser radiation (E), 1419 (E)

Kerr Cells

Use in time ratio spectrophotometer, 880 (P)

Kerr Constant

Selenium oxychloride (E), 1141 (L)

Kerr Effect

Magneto, bibliography, 623

Use in readout from magnetic storage medium, 528 (P)

Kramers-Kronig Analysis

Reflectance measured at oblique incidence (T), 1519

Lamps

Arc

Compact, acoustical resonances in modulated Xe and Kr (E/T), 939

Effect of thallium iodide in temperature of mercury discharges (T/E), 1563

High intensity for vacuum ultraviolet photochemist (E)

Laplace Transformations

Handbook, 860 (B)

Incare

Atmospheric propagation

Effects on (E), 703

Nonlaser light and (E), 1420 (L)

Wavelength dependence (E), 163 (L)

Beam, divergence variation across plane interface (T), 2010 (L) Beat-frequency interferometer with moving mirror (E), 160 (L)

Birefringence, induced, of glass rods pumped by flash lamps (E), 579

Booklet available, 1088 (N)

Books, 891 (B); 1062 (B); list, 1906 (B)

Cancer research, 207 (B)

Carbon dioxide

Multipath cell as amplifier and oscillator (E), 1541

Photographic recording medium for 10.6- μ radiation (E), 1419 (L)

Detection system (T), narrow spectral filter optimization for nonparallel (T), 1201

Engineering and applications conference, 2024 (MR)

Eye protection, 1486 (N)

Frequency control characteristics of piezoelectric transducers (E), 1005

Gas

Source for holography (E/T), 2192

Temperature compensated

Ground-to-space-to-ground experiments (E), 1579 (L)

Handbook, 2114 (N)

Harmonics useful for frequency translation (T), 1430 (L)

He-Ne, worst case of eye hazards (T), 1973

Heterodyne

Communication system, 1585 (P)

Receiver (E), 1333

Hologram copying, use and effect of two parameters on quality (E), 1947

Information processing with phase objects in cavity (E/T), 1761

Injection, pulse frequency modulated, 1585 (P)

Interferometer

Electronic quadrature technique (E), 1128 (L)

Unequal path, for optical shop (E), 1237

Light, scattered, object-image relationships in (E), 163 (L)

Light amplifier and oscillators, 226 (B)

Mitosis studies use, 363 (N)

Mirrors

Light scattering by (T/E), 831

Transmissivity optimization in high power optical cavities (T), 1434 (L)

Mode selection by internal reflection prisms (E), 431

Multimode, photomixing (T), 2006 (L)

Multiple communication system, 1566 (P)

Multipulsed ranging system (T), 1725

Neodymium glass, measured internal losses and output energies (E/T), 775 (L)

Nitrogen, molecular

New lines (E), 2006 (L)

Pulsed, measurements (E/T), 69; (T) 2115

Optical communications with narrowband optical heterodyne detection (E), 577 (L)

Output, variable coupler (E), 578 (L)

Phase fluctuations, time-resolved measurements after turbulent layer (E), 1273

Photomixing with multimode gas, radiation, optical path difference effects (T), 821

Probes

Excitation in spectrochemical analysis, source characteristics (E), 81, 87

Scientific, in structure of matter investigation using exponential amplifier (E/T), 1411

Pulse communication system, 1522 (P)

Pulsed plasma production and diagnostic application (E), 1814 Pumping

Active materials (T), 1960

Rare gas, activated uranium as getter (E), 2194 (L)

Efficiency factors (E/T), 837

Flux increase by immersion (T), 1578

Multiple pass effects in cavities (T/E), 437

Radiation damage in glass by linear absorption (E), 164 (L)

Radar communications, effect of atmospheric scintillation on data channel (T), 1729

Raman source, folded (E), 1129 (L)

Range measurement system, programmed multipulse (E/T), 353 (L)

Receivers, devices, techniques, systems, 442 (B)

Resonators

Dihedral (T), 865

Flat-roof, unstable region (T), 584 (L)

Mode structure in reactive optical information processing (T), 1571

Modes in interferometry in submillimeter wave (E), 827 Optical, in the unstable region (T), 861

Ring, for polarimetric measurements (T/E), 813

Ruby

Beam divergence test (E/T), 2192 (L)

Giant pulse, mode selection (E), 2193 (L)

Loss measurement by Fabry-Perot resonance (E), 421

Nondestructive chemical pumping (E), 1130 (L)

Output coupling, scattering and mirror reflectivity effects (T/E), 1011

Q-switched, time resolved beam structure (E), 1957

Transmission, plastic fiber optics (E), 1269 (L) Scattering in fog compared to monochomatic light (E), 1969

Semiconductor (R), 1818

Silver chloride, vapor, optically pumped (E), 1545

Soviet developments, 2016 (N)

Spectroscopy using (E), 1597

Spiking emission from many-element (E), 1243

Structure having electrodeless discharge pumping source, 1526 (P)

Transit instrument, 456 (N)

Tree, 1141 (N)

Vibration analyzing use 362 (N)

YAG:Nd3+ pumping using spherical reflectors (T/E), 1966

Zeeman discharge tube frequency monitor (E/T), 695

Lattice

Infrared absorption in finite crystals (T), 2079

Lead lodide

Crystals, photoconductive and photovoltaic spectral response (E), 1137 (L)

Length

Measurement seminar NBS, 148 (MR)

Lens Design

Resolving power predictions (E/T), 129

Lenses

Camera, 35-mm, zoom, 118 (N)

Copying for microelectronics, 1486 (P)

Copying, symmetrical six-element, 1587 (P)

Design of double Gauss system using digital computers (T), 553

Double Gauss system design using aspherics (E), 1911

Fly's eye, multiple imaging device using Wollaston prisms (E/T), 1275 (L)

Magnifying, illuminated, 278 (N)

Numerical aperture measurement (E/T), 1679

Objective

Cassegrain catadioptric, 1143 (P)

Catadioptric, 1143 (P)

Catadioptric 50.8-cm focal length f/1 (T/E), 973

Long-focus photographic, 593 (P)

Petzval type with field flattener, 118 (P)

Wide angle, 118 (P)

Zoom for binoculars, 1587 (P)

Projection, two-element, 1512 (P)

Reproduction, 593 (P)

Solar simulator, three-element assembly, 593 (P)

Spectacle, testing apparatus, 1587 (P)

Telephoto objective, reversed, 1143 (P)

Testing with compact interferometers (E), 803

Transmission measurement (E), 1140 (L)

Zoom, 1142 (P)

Afocal attachment, 1142 (P) Attachment, four-element, 945 (P) Camera mounting, 1143 (P) Compact, 1142 (P) Optically compensated, 1587 (P) Still camera, 1142 (P)

Light

Corpuscular interpretation of several wave experiments (T), 2196 (L)

Light Beams

Gas prism for, (T), 352 (L) Gun device for interrogating radar screen, 592 (P)

Measurement

Applicability and consequences of inappropriate use of units of light (T/E), 1473

Physical and biological action, 384 (B)

Pipe holography (E), 1272 (L)

Sensitive systems, nonsilver halide photography, 891 (B)

Shields in Cassegrain systems (T), 1063

Stray

Multiply diffracted in Ebert monochromators (E), 1132 (L) Reduction in plane grating spectrometers (E/T), 1029 Vision, 1041 (B)

Lighting

Interior on basis of visual criteria (E), 1443 Lamps and, 1548 (B) Luminous transfer in discrete space (T), 1469 Visual task parameters (E/T), 1866

Line Broadening

Spectral in air molecule systems (T), 141

Line Width

Ruby, at room temperature, measurement (E), 429

Lithium Niobate

Light modulator performance at 4 GHz (E), 351 (L)

Lithium Tantalate

Light modulator performance at 4 GHz (E), 351 (L)

Lloyd Interferometer

Flatness testing application (E/T), 1707

Low Frequency

Electrical, standards, NBS seminar, 147 (MR)

Luminance

Saturation, of high density microsecond arc channels (E), 935

Luminescence

$$\label{eq:conference} \begin{split} & Conference, Budapest, 286~(MR) \\ & Cooperative, of solids~(E/T), 1828 \\ & Short decay time measurement~(E), 417 \\ & Supplement, 1062~(B) \end{split}$$

Mach-Zehnder Interferometer

Astigmatism (E), 773 (L); 1583 (L); 1583 (L) 1583 (L)

Magnesium Fluoride

Polarizer for vacuum ultraviolet (E), 1001

Magnetic Resonance and Relaxation

Conference, Ljubljana, 829 (MR)

Magnetooptics

Bibliography, 603

Experiments on broad absorption bands in solids (E/T), 669 History, Faraday, 631

Readout use from magnetic storage medium, 528 (P)

Rotation spectropolarimeter, automatic recording (E), 699

Semiconductor studies (R), 647

Solids studies using Fourier transform spectroscopy (E), 685 Survey (R), 597

Magnetoplasma Edge

Solid state plasmas at microwave frequencies (E/T), 675

Magnetoplasma Effect

Bibliography, 623

Majorana Effect

Bibliography, 627

Mangin Mirror

Color-corrected (T), 963

Mark Sensing

Electroluminescent, 118 (P)

Maser (see Laser)

Three-level, transient solutions (T), 723

Materials

Science, diffraction methods, 208 (B)

Maxwell, J. C.

Scientific papers, 639

Measurements

Accurate setting and reading of slide displacement, 527 (P) Device for determining object dimensions, 527 (P)

Linear by noncontact methods, 528 (P)

Optical device for length, 528 (P)

Optical radiations, 176 (B)

Seminars, NBS, 147 (MR)

Meetings Calendar, 551, 713, 884, 1089, 1216, 1358, 1833

Meetings

AFCRL Scientific Balloon Symposium, 12-14 Sept. 1966 Wentworth, 238

American Physical Society—SMF-CAP, 21-23 June 1967, Toronto, 1595

American Society of Photogrammetry—American Congress of Surveying and Mapping, Annual Meeting, 5–10 Mar. 1967, Washington, D. C., 1562

Applications of X-Ray Analysis, 16th Annual Conference, 9-11 Aug. 1967, Denver, 2078

Applied Spectroscopy, Canadian Symposium on, 24–26 Oct. 1966, Montreal, 591

Color Council, 36th Annual Intersociety, 12-13 June 1967, New York, 2022

Electron-Nuclear Hyperfine Interactions in Spectroscopy, International Conference, 17-21 Oct. 1966, Wellington,

Glass Division of the American Ceramic Society, Fall Meeting, 12-14 Oct. 1966, Bedford Springs, 330

Instrumental Optics and Design: Meeting of the Optical Group of the Institute of Physics and the Physical Society, 19–21 Sept. 1966, Chelsea College of Science and Technology, 322

Laser Engineering and Applications Conference, 6–8 June 1967, Washington, D. C., 2024

Luminescence, International Conference, 23–30 Aug. 1966, Budapest, 286 Magnetic Resonance and Relaxation, 14th Colloque Amperè— International Conference, 5-10 Sept. 1966, Ljubljana, 829

Microscope in Scientific Investigation, International Conference on the Role of the, 18-22 July, 1966, Imperial College, London, 238

Microscopy Symposium, International, 15-19 Aug. 1966, Chicago, 286

Microwave and Optical Generation and Amplification, Sixth International Conference, 12–16 Sept. 1966, Cambridge, England, 589

Modern Optics 17th PIB Symposium, 22-24 Mar. 1967, Waldorf Astoria, New York, 2021

Molecular Structure and Spectroscopy, Twentieth Anniversary Symposium, 6-10 Sept. 1966, Ohio State University, 316

National Bureau of Standards Precision Measurement Seminars, Summary of the 1965-1966, 147

New York Microscopical Society Meeting, 29-31 Mar. 1967, New York City, 1297

Optical Frontiers Symposium, 14 Jan. 1967, Ann Arbor, 850

Optical Society of America, 51st Annual Meeting, 18-21 Oct. 1966, San Francisco, 315

Optical Technology, Symposium, 20 Dec. 1966, Bendix Research Laboratories, Southfield, Michigan, 1032

Photography and Cinematography in Industry and Technology, First International Congress, 6-8 Oct. 1966, Cologne, 590

Raman Institute, 5th Spring Institute, 8-12 May 1967, University of Maryland, 2022

Rare Earth Research Conference, 6th, 3-5 May 1967, Gatlinburg, Tennessee, 1561

Solid State Conference, International, 3–8 Sept. 1966, American University in Cairo, 296

Spectroscopy, International Conference on, 9–18 Jan. 1967, Bombay, 836

SPIE Seminar-in-Depth on Photo-Optical Systems Evaluation, 11-12 May 1967, Rochester, 1298

SPIE Seminar on Computerized Imaging Techniques, 26-27 June 1967, Washington, D. C., 2023

SPSE 1967 Conference. Session X—Silver Halide Chemistry, 15-19 May 1967, Chicago, 1298

SPSE Symposium on Progress in Photographic Science, 17–18 May 1967, Chicago, 2023

Triplet State, International Symposium, 14-19 Feb. 1967, American University of Beirut, Lebanon, 1031

Vitreous Chalcogenide Semiconductors, 4th Symposium, 23–27 May 1967, Leningrad, 2021

Meggers, William

Biography, 94 (N)

Mercury

Arc temperature, discharges, thallium iodide effect (T/E), 1563 Vapor detection using ultraviolet, 1512 (P)

Mesosphere

Discussion on some aspects, 864 (B) Meteorological problems, 804 (B)

Metachromatic Materials

Spatial filter use for optical information processing, 118 (P)

Metals

Reflectance, infrared from, cryogenic temperatures, 924 (B)

Meteorology

Problems of the stratosphere, 864 (B)

Metric System

Discussion on use, 638 (N), 1009 (N), 1331 (N)

Metrology (see also "Measurements")

Dimensional

Abstracts through 1964, 1207 (B)

Fundamentals, 177 (B)

Michelson Interferometer

Spatial coherence improvement in, (E/T), 873

Microfile

Optical retrieval device of peekaboo type, 528 (P)

Microscope

Apertometer, precise, measurements (E/T), 1679

Goniometric, 1104 (P)

Objective, 593 (P)

Three-component, 945 (P)

Two-component, 945 (P)

Optical stereo system, 945 (P)

Optical system, low power, inexpensive, 593 (P)

Role in scientific investigation, conference, 238 (MR)

Society, 2016 (N)

Microscopy

Advances, 1042 (B)

New York Society, meeting, 1297 (MR)

Photomicrography, 2139 (B)

Symposium, Chicago, 286 (MR)

Microwaves

Advances, 2175 (B)

Generation and amplification, conference, Cambridge, 589
(MR)

Holograms and optical reconstruction (E/T), 1943

Millimeter, attenuated by water vapor (T), 2005 (L)

Progress in French Canada (R, T/E), 1625

Mie Scattering

Analytical and experimental investigation of, polydispersions (E/T), 511

Electromagnetic, from absorbing spheres (T), 1377

Minerals

Infrared spectral reflection using multiple-scan interferometry (E), 1503

Mirrors

Corner, rapid-scan spectrometer (E), 267

Laser, light scattering (T/E), 831

Mangin, color-corrected (T), 963

Oscillations, varifocal, spectroscopic display (E), 1085

Paraboloidal, afocal correctors (T), 1227

Paraboloidal figuring by ion bombardment (E), 2010 (L)

Plane

Operator formulation of systems (T), 537

Viewability regions for pair of intersecting semiinfinite (T), 773 (L)

Reflectivity, effect on ruby laser performance (T/E), 1011

Surface testing (E), 803

System, training device with virtual object at infinity, 1512 (P)

Transmissivity, optimization for laser, in high power cavities (T), 1434 (L)

White system applied to (E), 1541

Modulation Transfer Function

Polarization interferometer for spectral, of monochromators (E) 1523

Thermal structure in lower atmosphere optical effects (E), 497

Xerography, development method and (T), 943

December 1967 / Vol. 6, No. 12 / APPLIED OPTICS 2217

Modulators

Acoustical resonances in modulated xenon and krypton compact arc lamps (E/T), 939

Device for beam of beta or x radiation, 1526 (P)

FM of light signal for communications system, 1544 (P)

Infrared utilizing field-induced free carrier absorption (E/T), 1033

Light, using carrier injection, 1526 (P)

LiTaO₃ and LiNbO₃, performance at 4 GHz (E), 351 (L)

Optical, light, with high FM sensitivity (E/T), 1233

Phase, reading system, 1522 (P)

Precision ellipsometers use with mechanical (E), 1279 (L)

Semiconductor, light, using free carrier absorption, 1522~(P) Shutter, 1526~(P)

Moiré Fringes

Apparatus for measuring small movements, 1522 (P)

Crossed gratings device for better contrast, 527 (P)

Device for position indication, 527 (P)

Holographic, application to aerodynamics flow visualization (E), 1428 (L)

Multiplication phenomena analysis (T/E), 1938

Scanning method for Fabry-Perot spectrometer (T/E), 1659

Use in position indicator, 527 (P)

Variable Fresnel zone pattern (T/E), 1567

Molecular Spectroscopy (see also Spectroscopy, Molecular)

Multilingual dictionary, 1068 (B)

Symposium, Ohio State University, 316 (MR)

Monochromators

Double grating with no tracking error, 346 (L), 347 (L)

Dual, system, 1526 (P)

Ebert, multiply diffracted light in (E), 1132 (L)

For on-stream process analysis, 1586 (P)

High resolution rapid-scanning spectrometer (E), 279

Mass spectrometer with, for upper atmosphere studies, 396 (N)

Multiple tiny prisms for dispersion, 1142 (P)

Polarization interferometer for MTF of (E), 1523

Scanning, dual spectral region, 528 (P)

Slit control apparatus, 595 (P)

Stray light reduction in in-plane grating spectrometers (E/T), 1029

Synchrotron extreme ultraviolet spectroscopy, instrumental aspects (E), 31

Mössbauer Effect

Methodology, 1405 (B)

Moon

Earth-based infrared mapper for thermal and compositional studies (E), 1111

Emissivity in 8–13 μ region, two surface points differential comparison (T/E), 1981

Mode Selection

Laser, by internal reflection prisms (E), 431

Mode Structure

Transverse, in unstable optical cavities (E), 845

National Bureau of Standards

Early history of optics (R), 1

Gaithersburg complex construction, 26 (N)

History, 9 (B)

Photographic standardization and research (R), 27

Physiological optics (R), 13

Naval Research Laboratory

Optics at (R), 2029

Neodymium Laser

Internal losses and output energy measurement (E/T), 775 (L)

Netherlands

Optical history, 785

Newton's Rings

System for testing quadric surfaces, 1526 (P)

Nitrogen

Molecular, pulsed laser measurements (E/T), 69

Neutral, vacuum ultraviolet spectrum measured and calculated (E/T), 43

Spectral line broadening (T), 141

Spectral line broadening in N2+ (T), 141

Nitric Oxide

Absorption coefficient and photoionization yield in 580–1350 Å (E), 391, 1220

Fundamental, integrated intensity (E), 1305

Spectral line broadening (T), 141

Noise

Heterodyne and photon-counting receivers for optical communications (T), 245

High frequency measurements, 148 (MR)

Photodetectors, solid state, limitations in (R), 1145

Photomultipliers

Factor measurements (E), 359 (L)

Threshold sensitivity and ratings (E), 251

Spectra of liquid He temperature Ge bolometer (E), 576 (L)

Two-beam interferometry (T), 1580 (L)

Nomenclature

Photometry and radiometry (R), 1127 (L)

Nuclear Magnetic Resonance

Bibliography, 628

Nuclear Quadrupole Resonance

Conference, 1478 (N)

Observatory

Mauna Key, 361 (N)

Oceanography

Penetration of collimated radiation vertically incident on ocean surface (T), 737

Underwater visibility improvement by reduction of backscatter with a circular polarization technique (E/T), 741

Optical Activities in Industry, 1437, 1501

Optical Activities in the Universities, 50, 694, 1087, 1307, 2013

Optical Brighteners

For synthetic linear polyesters and polyamides, 1587 (P)

Optical Circulators

Using quarter-wave plates (T/E), 581 (L); 1277 (L); 1277 (L)

Optical Communications

Atmospheric scintillation effect on (T), 1729

FM modulation, 1544 (P)

Gas prism for light beams (T), 352 (L)

Heterodyne and photocounting receivers for (T), 245

Optical superheterodyne receiver (E), 1333

Square wave modulation of source, 118 (P)

Optical Constants

Determination (T), 587 (L)

Germanium (E), 61

Tektites (E), 586 (L)

Optical Correlation

Detection of trace amounts SO₂ in absorption spectra apparatus (E), 776 (L)

Optical Density

Standards at NBS (R), 27

Optical Devices

Analyzer for spectrum of applied data signal, 594 (R)

Assembly alignment, 1544 (P)

Counter circuit of photoconductors and electroluminescent elements, 1518 (P)

Digital control of focal distances (T), 549

Electrooptical

Detector for determining its line-of-sight, 1518 (P)

Distance gage, 1586 (P)

Positioning system, 1522 (P)

Tape sensor, 1544 (P)

Encoder, 1512 (P)

Expansion and compression on electrical pulses by optical correlation, 594 (P)

Fast-switching, bistable, electrooptical flip flop, 1518 (P)

Infrared seeker missile system with FM reticle, 1142 (P)

Locating ground point vertically aligned with overhead sighting point, 595 (P)

Multiple imaging, using Wollaston prisms (E/T), 1275 (L)

Optical drill jig with polygon mirror and auto collimator, 1585 (P)

Photoelectric

High scanning rate digital storage and readout, 526 (P)

Measuring and adjusting, 527 (P)

Scanners for detection of reflectivity variations, 1142 (P)

Position readout, 1544 (P)

Readout system with rotatable deviating element, 527 (P)

Semiconductor four-terminal, electrooptical, using light coupling, 1518 (P)

Size measurement of object without touching, 527 (P)

Stabilized leveling instrument with spring mounted optical element, 592 (P)

Stereoscopic viewing system, 1586 (P)

Symbol indicators, 526 (P)

Thickness measuring instrument, 1585 (P)

Vibration compensated viewing system, 1586 (P)

Workpiece positioner, 1544 (P)

Optical Design

Advances in optimization techniques, 488 (B)

Book, 905 (B)

Cassegrain light shields (T), 1063

Double Gauss system using digital computers (T), 553

Meeting, London, 322 (MR)

Schmidt telescope, 3048-mm, f/2.5 flat-field (E), 1069

Semiautomatic general of optical prototypes (T/E), 969

System, 487 (B)

Time sharing computer (E), 585 (L)

Optical Engineering

Book, 905 (B)

Optical Materials

Problems of interplanetary space (R, E), 955

Schlieren grade glass, 234 (N)

Smoothness and thermal stability of Cer-Vit (E), 1275 (L), 1584

Studies at Naval Research Laboratory, 2029

Thermal change in nondispersive infrared refractive index (E/T), 1513

Transmittance from 0.1 μ to 3.0 μ (E), 1896

Optical Measurements

New interferometer capable of measuring small optical path differences (E/T), 137

Optical Properties

Antimony sulfo-iodide, temperature dependence through ferroelectric-paraelectric transition (E), 1059

Cadmium telluride, electrooptic constant (E), 1276 (L)

Magnetooptics, survey (R), 597

Potassium dihydrogen phosphate (KDP), clamped electrooptic coefficients (E), 778 (L)

Quartz, clamped electrooptic coefficients (E), 778 (L)

Semiconductors and semimetals, interband magnetooptical studies (R), 647

Verdet coefficient in semiconductors and insulators, determination, (R, T/E), 661

Optical Rotation

Automatic recording magnetooptical spectropolarimeter (E),

Faraday effect device with ferromagnetic chromium tri-halide, 592 (P)

Optical Shop

Calibration of 45° angle block, 80 (N)

Cesium-halide window polishing (E), 1583 (L)

Diffraction grating to control ruling machine (E), 1861

Grinding and polishing machine, 1506 (N)

Interferometer, laser unequal path (E), 1237

Paraboloid figured by ion bombardment (E), 2010 (L)

Optical Surfaces

Generation, 2019 (B)

Planeness measurement (E/T), 1077

Optical Systems

Automatic realignment, 595 (P)

Catadioptric, apochromatic, 1587 (P)

Catadioptric objective, 50.8-cm focal length, f/1 (T/E), 973

Cylindrical rodlike lenses use in, 593 (P)

Objective, high speed, catadioptric, 118 (P)

Limitations, for images of many discrete elements of area (T), 1383

Operator formulation of plane mirror (T), 537

Panoramic, with annular lenses of toric and conic surfaces, 1143 (P)

Projection increased magnification using negative lens, 1512 (P)

Three-component with external pupils, 1142 (P)

Viewing, training device with virtual image at infinity, 1512 (P)

Optical Technology

Symposium, Southfield, 1032 (MR)

Optical Testing

Absolute contour determination (E), 1917

Multiple beam interferometer for spherical wavefronts (E), 1924

Flatness, using Lloyd interferometer (E/T), 1707

Hologram-moiré interferometry for transparent objects (E),

Lens and surface with compact interferometers (E), 803

Optical alignment with Rank-Taylor-Hobson microalignment telescope, 917 (B)

December 1967 / Vol. 6, No. 12 / APPLIED OPTICS 2219

Precise measurement of planeness (E/T), 1077

Quadric surfaces, 1526 (P)

Retardance meter design (E), 1773

Spectacle lens apparatus, 1587 (P)

Spherical aberration analysis by double wire testing (E), 1073 Twyman-Green modified multipass interferometer (E), 1425

(L)

Optical Society of America

Corporate members, 504

51st annual meeting, 18-21 Oct. 1966, San Francisco, 315 (MR)

Research and Education, 402, 954, 1194, 1502

Technical Groups, 135 (N), 455 (N), 1624

Optics

Book lists, 1706, 1916

Canada (R), 1589; (R), 1625

Case Institute, colloquium series, 1308 (N)

Courses, see also Meetings Calendar

Employment, 219 (N)

Eppley, radiometry course, 1266 (N)

Expo 67, 1143 (N), 1294, 2016 (N)

Frontiers, symposium, Ann Arbor, 850 (MR)

High energy beam, 233 (B)

History

National Bureau of Standards (R), 1

Netherlands, 785

Imperial College, introductory course, 802 (N)

Itek center, 1096 (N)

Letters journal for discussion, 2103 (N)

Massachusetts Institute of Technology, infrared spectroscopy course, 340 (N)

Modern, 226 (B)

Modern, symposium, 2021 (MR)

Optical Spectra, new journal, 1088 (N)

Pacific University, program, 1308 (N)

Physical, in photography, 466 (B)

Physiological, progress (R), 1283

Problems, 1041 (B)

Progress, 781 (B)

Purdue University, courses in engineering optics, 1088 (N)

Rensselaer Polytechnic Institute, color courses, 1188 (N)

Soviet Science in the News, publication resumed, 2016 (N)

Teaching aids, 1307 (N)

University of California at Los Angeles,

Attenuated total reflection and specular reflection spectroscopy course, 1558 (N)

Modern optics course, 798 (N)

University of Michigan

Atmospheric physics course, 771 (N)

Optics courses, 811 (N)

University of Rochester

Optics courses, 820 (N)

USSR

Developments (R), 1783

Journal of Optical Technology, English translation, 2114 (N)

Optics and Opticists, 26, 234, 812, 1095, 1303, 1477, 2015, 2114

Orbiting Solar Observatory

Solar cells, 1027 (N)

Oximetry

Reflective, 594 (P)

Oxygen

Spectral line broadening (T), 141

Ozone

Absorption (E), 1487

Particle Physics

Lasers as probe for investigating (E/T), 1411

Particles

Detection of small, by light deflection, 1526 (P)

Pattern Recognition

Computer system photosensitive optical logic unit, 1526 (P)

Phase Shifters

Spectral, graph, 660

Photocathodes

Opaque

Analysis of, and translucent (T), 356 (L)

Multiple beam interference in (T), 356 (L)

Optical and spectral properties of S-20, on nesa substrates (E), 573 (L)

Optical means for enhancing the sensitivity of tri-alkali (E/T), 1171

Translucent, analysis of multiple reflective (T), 443

Photochemistry

Book, 1076 (B)

High intensity flash lamp for vacuum ultraviolet (E), 415

Photochromic Glass

Information storage capacity measurement by holography (E/T), 1428 (L)

Photoconductivity (see also Electrophotography)

Granularity measurement use (E), 1421 (L)

Layers for electrophotographic purposes, 1518 (P)

Noise limitations in solid state (R), 1145

Storage tube with special storage layer, 1120 (P); 1120 (P)

Photodetectors

Noise limitations in solid state (R), 1145

Responsivity calibration elimination of lumen (E), 1575 (L)

Photodiodes

Narrow spectral response (T), 1777

Photoelectric Devices

Slide rule for, 1486 (N)

Photoemission

Optical and spectral properties of S-20 photocathodes on nesa substrates (E), 573 (L)

Thin film, optical factors (T), 2163

Photoetching

Device using light sensitive resin for photomechanical process, 528 (P)

Photogrammetry

Meeting, Washington, D. C., 1562 (MR)

Photography

Chemical analysis, 175 (B)

Copy quality and effect of two parameters in hologram copying (E), 1947

Densitometer, automatic recording and analyzing, 880 (P)

Electrode processes in spark discharge (E), 2176 Emulsion shrinkage effects of hologram's image space (T/E)

1270 (L)
Film, hypersensitized, anomaly in spectral data recording (E),
1278 (L)

2220 APPLIED OPTICS / Vol. 6, No. 12 / December 1967

Film, nonlinearity effects in holography (E/T), 1755

Granularity measurement using photoconductive cells (E), 1421 (L)

Holographic interferometry, low angle, using Tri-X Pan film (E), 1418 (L)

Image forming process for higher speed, 594 (P)

Industry, congress, Cologne, 590 (MR)

Multistage, color integrity preservation (T/E), 2158

Objective, apochromatic, 1587 (P)

Optics, conference, Tokyo and Kyoto, 177 (B)

Photoetching device using light sensitive resin for photomechanical use, 528 (P)

Physical optics, 466 (B)

Plates, antihalation backing to eliminate interference bands from coherent light (E), 977

Practical photomicrography, 2139 (B)

Printing time control device, 945 (P)

Process, theory, 917 (B)

Processes, nonsilver halide, chemistry and applications, 891 (B)

Recording medium for 10.6-µ laser radiation (E), 1419 (L) Refractive image film of polymeric matrix, 594 (P)

Science, progress, 2023 (MR)

Silver-halide chemistry, conference, Chicago, 1298 (MR)

Soviet cameras, 2016 (N)

Spectra, faint, electronic enhancement (E), 1427 (L)

Spot luminance analyzer, 945 (P)

Standardization and research at National Bureau of Standards (R), 27

Systems for engineers, 1317 (B)

Upper atmosphere studies (R, E), 1609

Photointerpretation

Meeting, Washington, D. C., 1562 (MR)

Photoionization

Yield of NO in region 580-1350 Å (E), 391, 1220

Photolithography

Infrared polarizers, transmission, by (E/T), 1023

Photolysis

Vacuum ultraviolet flash apparatus (E), 47

Photometer

Area measurement, 880 (P)

Direct recording of solute concentration, 880 (P)

Image reflectivity measurement, 880 (P)

Image-scanning, three-beam photoelectric, for astronomy (E),

Quadrant, for satellite-borne auroral and optical measurements (E), 1105

Spot, 945 (P)

Studies at Naval Research Laboratory, 2029

Photometry

Integrating sphere,

5-m (E), 757

Screenless (T), 1138 (L)

Liquid level detector, 880 (P)

Luminous transfer in discrete space (T), 1469

Optical Society of America Technical Group, meeting, 1624 (N) Photodetector responsivity calibration without use of lumens (E), 1575 (L)

Units (R), 1127 (L)

Upper atmosphere studies (R, E), 1609

Photomixing

Multimode gas laser radiation, optical path length difference effects (T), 821 Multimode lasers (T), 2006 (L)

Photomultipliers

Noise factor measurements (E), 359 (L)

Open structure, performance in 1100-250 Å wavelength region (E), 1319

Properties (R), 979 (L)

Quantum counters (E), 161 (L)

Satellite instrumentation (E), 239

Spectral sensitivity changes from temperature changes (E), 1179

Threshold sensitivity and noise ratings (E), 251

UHF light modulation detection (E), 1780

Ultraviolet

Extension to (E), 1577 (L)

Extreme, detectors for (E), 385

Increased sensitivity in the sodium salicylate, combination (E), 350 (L)

Photon Counting

Receivers for optical communications (T), 245

Photons

Noise (R), 1145

Properties (T), 323 (B)

Photooptics

Underwater, seminar, Santa Barbara, 1095 (N)

Photooptical Systems Evaluation

SPIE seminar in depth, Rochester, 1298 (MR)

Physics

American Physical Society, 1595 (MR)

Atomic and space, 383 (B)

Dictionary of, 1169 (B)

Exhibitions, 234 (N)

Exhibition, London, 1304 (N)

Manpower 1966, 954 (N)

Physiological Optics

National Bureau of Standards, history (R), 13

Progress (R), 1283

Studies at Naval Research Laboratory, 2029

Visual criteria for evaluation of interior lighting (E), 1443

Pi

Mnemonic for, 234 (N)

Piezoelectric Transducers

Laser frequency control characteristics (E), 1005

Pigments

Titanium oxide gloss improvement, 594 (P)

Planck Function

Approximation, and optical pyrometry (T), 107

Planetary Atmospheres

Balloon telescope optics (E), 179

Plasmas

Electron density, optical measurement of large theta-pinch (E), 2120

Fractional-fringe holographic interferometry (E), 1407

Pulsed, laser use in production and diagnostics (E), 1814

Spectroscopic method diagnostics (R), 983

Spectroscopy, vacuum uv and soft x-ray (E/T), 2071

Polarization

Circular, technique for improved visibility underwater through backscatter reduction (E/T), 741

MacNeille beam splitter use in laser variable output coupler (E), 578 (L)

Properties of powder materials (E), 1899

Radiation emerging from earth's atmosphere by balloonborne measurements (R, E/T), 221

Polarizers

Infrared transmission, by photolithography (E/T), 1023 Linear, spectral region, graph, 660 Rotating, for Faraday rotation measurements (E), 772 (L) Ultraviolet, 1544 (P); 1544 (P) Vacuum ultraviolet (E), 1001

Potassium

Resonance radiation, radiofrequency sources (E), 1683

Potassium Dihydrogen Phosphate (KDP)

Clamped electrooptic coefficients (E), 778 (L) Linear optical modulator with high FM sensitivity (E/T), 1233

Potassium Tantalate Niobate

Crystals, linear electrooptic effects (E), 2007 (L)

Polarimeter

Automatic, for space applications (E), 1121 Recording, for circular dichroism, 1585 (P) Ring laser (T, E), 813 Ultraviolet, using high altitude balloons (E), 231

Power Limiter

Optical (E/T), 158 (L)

Printing

Pressure, of color, 593 (P)

Projection System

Optical symbol indicators, 526 (P) Reflective scanning, 527 (R)

Projector

Optical device with mechanical image shifter, 528 (P) Two-axis image position motion, 527 (P) Vision, with image interposing display, 527 (P)

Gas, for light beams (T), 352 (L) Internal reflection, laser mode selection (E), 431 System of many tiny elements for monochromator, 1142 (P)

Publishing

Rules for authors and publishers, 792 (N) Scientific journal problems, 2000 (N)

Pulse Counting

Photomultiplier tubes (E), 161 (L)

Pumping

Chemical nondestructive, of ruby lasers (E), 1130 (L) Double resonance techniques for collision broadening (E), Flux increase for lasers by immersion (T), 1578 (L)

Generalized laser active materials (T), 1960 Lasers, spherical reflector use, (T/E), 1966 Light pulsed at Zeeman frequency, 1566 (P)

Optical, factors affecting efficiency (E/T), 837

Pyrometer

Radiation for color temperature, 1586 (P)

Pyrometry

Optical, application of approximations of Planck function to (T), 107

Quantum Mechanics

Feynman lectures, 891 (B) New foundations, 171 (B)

Quarter-Wave Plates

Optical circulator using (T/E), 581 (L); 1277 (L); 1277 (L)

Ouartz

Birefringence variations (E), 1279 (L) Clamped electrooptic coefficients (E), 778 (L) Fused, refractive index, far infrared (E), 1889

Optical, programmed multipulse range measurement system (T/E), 353 (L)

Radar Screen

Light gun for, 592 (P)

Contributions to energy and momentum transport in a gas, 2200 (B)

Differences, fine detail enhancement (E/T), 505

Earth's atmosphere by balloon-borne measurements (R, E/T),

Lyman α, interactions with atomic hydrogen, experiments (E), 167 (L)

Nomenclature (R), 1127

Nonisothermal gases (T), 1995

Optical, measurements, 176 (B)

Shortwave solar, studies in USSR (E), 1834

Solar, up to 30 km and attentuation component stratification in the stratosphere (E), 197

Spectral at horizon sky (E), 2105

Transfer

Luminous in discrete space (T), 1469

Selected papers, 1062 (B)

Ultraviolet, use on man, cattle and poultry (E), 1872

Radiometry

Absolute calibration source for laboratory and satellite infrared spectrometers (E), 1183 Airborne, of the sea (E), 2151 Optical Society of America Technical Group, 1624

Spectral irradiances

By prism and filter spectroradiometers (E), 1479 Units (R), 1127

Rainbow Optical Landing System

Multistage photographic process, use (T/E), 2158

Raman Effect

High resolution spectroscopy of gases (E), 1597 Institute, 2022 (MR) Scattering in finite crystals (T), 2079 Spectra at low temperatures (E), 1597 Stimulated, Soviet work (R), 1805

Raman Source

Folded laser (E), 1129 (L)

Raman Workshop

Fifth annual, 1478 (N)

Ranging

Multipulsed laser system (T), 1725

Optical, finding device, 594 (P)

Programmed multipulse measurement system (E/T), 353 (L)

Rare Earths

Research conference, 1561 (MR)

Recorder

Optical, for sound, 1522 (P)

Reflection, Reflectance, Reflectivity

Aluminum overcoated iridium, in vacuum uv (T), 2007

Attenuated total study of extremely small samples (T), 715

Bidirectional, measurements in spectroscope (E), 1687

Determination of optical constants (T), 587 (L) Frustrated total, application to optical filters (T), 897

Infrared

Metal grids (E), 893

Metals at cryogenic temperatures, 924 (B)

Kramers-Kronig analysis at oblique incidence (T), 1519

Measurement errors and elimination by improved instrument design (T), 2140

Mirrored optical surface degradation in space measurement, 2114 (N)

Multilayer surfaces for Fabry-Perot interferometer (E/T), 2003 (L)

Properties of powder material (E), 1899

Scattering from substrates and evaporated films in far ultraviolet (E), 719

Specular, spectroscopy, course UCLA, 1558 (N)

Spectral in integrating sphere (E), 757

Spectroscopy, 176 (B)

Standard, optical characteristics of proposed (E), 979 (L)

Thin films, rational approach to multilayer synthesis (T), 331

Refraction

Surface, in ultraviolet (E), 1576 (L)

Vertical penetration of collimated optical radiation normally incident on ocean surface (T), 737

Refractive Index

Air, temperature, pressure and composition dependence (R, T),

Effective

Dielectric films, thickness distribution measurements (T/E), 727

Metal-dielectric interference filters (T/E), 471

Freon 12 (E), 1140 (L)

Germanium, in far infrared (E), 1889

Optical materials, thermal change in nondispersive infrared (E/T), 1513

Thin film, calculation (T), 168 (L)

Refractory Compounds

Thermodynamics, 892 (B)

Reproduction

Anisotropy in alphanumeric, tolerances (E/T), 341

Image recording system, 1518 (P)

Resolving Power

Fabry-Perot interferometer and reflection echelon in visual observations of absorption spectra (T), 1134 (L)

Predictions from lens design data (E/T), 129

Standards at NBS (R), 27

Resonance

Acoustical in modulated Xe and Kr compact arc lamps (E/T), 939 Scattering from absorbing spheres (T), 1549

Resonators

Confocal, production for scanning interferometer (E), 1430

Dihedral optical (T), 865

Flat-roof, unstable region (T), 584 (L)

Mode selection of giant pulse ruby lasers (E), 2193 (L)

Modes, interferometry in submillimeter wave lasers (E), 827

Optical, progress in French Canada (R, T/E), 1625 Unstable region (T), 861

Retardance

Meter, simple (E), 1773

Reticles

FM infrared seeker missile system, 1142 (P)

Scanners, moving, image velocity sensing (T), 1387

Tracker for FM chopping of point-target image, 1104 (P)

Retroreflectors

Lens and lens assemblies, 1586 (P)

Particles and markers, 1544 (P)

Rockets

Measurements in USSR of solar vacuum uv and soft x-ray radiation (E), 1834

Middle ultraviolet solar spectroscopy with echelle spectrograph from (E), 365

Telescope for, instrumentation (E), 570 (L)

Rubies

Room temperature R_1 line width measurement (E), 429

Satellites

Laser, continuous wave, reflected from, experiments (E), 1579
(L)

Measurements in USSR of solar vacuum uv and soft x-ray radiation (E), 1834

Photomultiplier tubes for, instrumentation (E), 239

Quadrant photometer for, auroral and optical measurements (E), 1105

Scanning

Earth-based, infrared lunar mapper for thermal and composition studies (E) 1111

Moving reticle, for image velocity sensing (T), 1387

Rapid spectral, applied to high resolution solar spectrophotometry (E), 1433 (L)

Reflective system for projection, 527 (P)

Synchronized high speed, infrared spectrometer (E), 885

Tracker FM chopping recticle for point-target image, 1104 (P)

Scattering

Anomalous, in x-ray diffraction and use of several wavelengths (T), 2132

Back

Clouds in visible and infrared (T), 1209

Reduction for enhanced underwater visibility (E/T), 741

Coherent light (E), 170 (L) Concentric spheres, optical efficiency factors (T), 1555

Earth's atmosphere measured from balloons (R, E/T), 221

Electromagnetic from absorbing spheres (T), 1377

Haze, computed and experimental spectral transmission (E),

Indirect combination, Soviet work (R), 1805

Laser and monochromatic incoherent light in fog (E), 1969

Light, tables of angular functions, 2019 (B)

Mie particles, polydispersed (E/T), 511

Mirrors of lasers (T/E), 831

Reflective, from substrates and evaporated films in far ultraviolet (E), 719

Refractive index of Freon 12 (E), 1140 (L)

Resonance, from absorbing spheres (T), 1549

Ruby laser performance and effect of mirror (T/E), 1011

Small particle method for infrared dispersion in solids (E), 925

Solar flux in middle ultraviolet and atmospheric (T/E), 373

Solar radiation, by balloon observations of earth's radiance between 2100 cm⁻¹ and 2700 cm⁻¹ (E), 227

Thermal and stimulated molecular (R), 1793

Schlieren Systems

Reactive optical information processing (T), 1571; (E/T) 1761

Schmidt Telescope

Cassegrain-, with flat field (E/T), 976 (L), 1436 Flat-field design (E), 1069

Science Societies

Accomplishments, 50 (N); 694 (N)

Scintillation

Atmosphere, on optical data channel communication (T), 1729 Optical, literature survey, 872 (B)

Optical effects of thermal structure in lower atmosphere (E), 497

Sea

Airborne radiometry (E), 2151

Optical measurement by resistance analog (E/T), 1992

Seeing Meter

Differential-interferometer (E), 1136 (L)

Selenium Oxychloride

Kerr constant (E), 1141 (L)

Semiconductors

Interband magnetooptical studies (R), 647

Lasers (R), 1815

Optical Verdet coefficient determination (R, T/E), 661

Vitreous chalcogenide, 2021 (MR)

Semimetals

Magnetooptical studies (R), 647

Sensitivity of Photomultipliers

Spectral, changes with temperature (E), 1179

Threshold and noise ratings (E), 251

Shock Waves

Strong, radiant properties in argon (E), 1493

Electrooptic, large aperture, 1512 (P)

Signal Processors

Real-time electrooptical, with coherent detection (E/T), 1367

Silicon

Crystal growth techniques, 1518 (P)

Detector response and earth radiance (T), 2110

Heavily doped, as low temperature transmission filter for far infrared (E) 978 (L)

Refractive index, far infrared (E), 1889

Silver Chloride

Vapor, vibrational energy level population in optically pumped (E), 1545

Size Measurements

Hologram techniques for particles (E), 519

Raindrops and aerosols using photomultiplier and graded slits, 527 (P)

Sky

Brightness studies at Naval Research Laboratory, 2029 Horizon, spectral radiance (E), 2105

Societies, Scientific

Accomplishments, 50 (N); 694 (N)

Sodium Salicylate

Photomultiplier combination for increased ultraviolet sensitivity (E), 350 (L)

Solar Atmosphere

Book, 910 (B)

Solar Flux Scattering

Earth's atmosphere

Middle ultraviolet (T/E), 373

Near ultraviolet at 35 km (E), 1487

Solar Simulator

System, 118 (P)

Solar Spectrophotometry

High resolution from rapid spectral scanning (E), 1433 (L)

Solar Spectroscopy

Echelle spectrograph for middle ultraviolet, from rockets (E), 365

Solid State

Conference, Cairo, 296 (MR)

Blackbody radiation, high temperature (E/T), 357 (L)

Calibration, absolute, for laboratory and satellite infrared spectrometers (E) 1183

Continuous, graph, 660

Graphite arc, low current, spectral radiance (E), 95

Ionic beam, spectroscopic properties (E), 1309

Laser probe in spectrochemical analysis (E), 81, 87

Light

Beta ray, 1586 (P)

Plasma, for spectroscopy, 595 (P)

Potassium, resonance radiation, radiofrequency (E), 1683

Quasi-monochromatic, degree of coherence in the image of (E), 1403

Raman, folded laser (E), 1129 (L)

Rare gas uv resonance lamp, improved lithium fluoride window, 2135 (N)

Square wave modulation for light communication system, 118

Synchrotron radiation as fundamental radiometric standard (E), 1043

Thermosensitive copier, 1120 (P)

Ultraviolet

Emission from capillary discharge (E), 409 Extreme, (E), 571 (L)

Automatic polarimeter for, applications (E), 1121

Optical material problems (R, E), 955

Physics, 383 (B)

Research, twenty years of (R), 2044

Telescope for rocket use (E), 570 (L)

Sparks

Electrode phenomena in high current 20-nanosecond (E), 2176

Spatial Filters

Character recognition device, 526 (P)

Computed generated, applied to code translation (T/E), 1139

Correlation function, with incoherent light (T/E), 1272 (L)

Device for cancellation of background information and thermal image tube nonhomogeneous characteristics, 1585 (P)

Diffraction patterns of Chinese characters (E), 1421 (L)

Holograms and, processed and copied in position (E), 170 (L)

Reactive optical information processing (T), 1571, 1761 Real-time electrooptical signal processors with coherent detec-

tion (E/T), 1367 Small displace effects (T/E), 1221

Spatially modulated coherent wavefront recording parameters (E/T), 851

Storage capacity of optically formed, for character recognition (T/E), 1359

Use in optical information processing, 118 (N)

Spectra

Absorption, visual observation with Fabry-Perot (T), 1134 (L)

Absorption bands, overlapping (E), 1422 (L)

Band, of carbon monoxide, 465 (B)

Emissivity, in infrared from crystalline calcium fluoride (E), 119

Measurements from 1.6 μ to 5.4 μ of natural surfaces and clouds (E), 1399

Molecular

Apparatus for observation (E), 1593

Emission in soft x-ray region (E), 39

Structure and, 1068 (B)

Photographic, faint, electronic enhancement (E), 1427 (L)

Ultraviolet

Extreme, new light source (E), 571 (L)

Vacuum, neutral nitrogen, measured and calculated wavelengths (E/T), 43

Spectral Radiance

Low current graphite arc (E), 95

Spectrochemical Analysis

Comparison signal circuit for spectral line intensity measurement, 1587 (P)

Laser probe excitation, source characteristics (E), 81, 87

Method and apparatus for producing radiation for, 1587 (P)

Optical spectrometry, x-ray fluorescence, and electron probe microanalysis, 172 (B)

Spectrograph

Czerny-Turner, astigmatism correction (T), 159 (L)

Echelle, for middle ultraviolet solar spectroscopy from rockets
(E) 365

Grating, high order blazed, simple order sorter (E), 1655

Interferometer crossed with, to study physical processes (T/E), 1855

Method of metal analysis, 1544 (P)

Prism, with anamorphic lens, 528 (P)

Streak, with microsecond resolution (E), 881

Time-resolving, for free-flight ballistic range applications (E), 1195

Spectrometer

Balloon-borne grating (R, E), 191

Czerny-Turner, correction for astigmatism (T), 159 (L)

Double grating monochromator with no tracking error, 346 (L); 347 (L)

Dual monochromator system, 1526 (P)

Echelle, for astronomical use (E), 1976

Fabry-Perot deconvolution technique (T/E), 1701

Fabry-Perot moiré fringe scanning method (T/E), 1659

Filter wedge, for field use (E), 1057

Four-pass high resolution, for near infrared (E), 1295

Fourier, double beam operation (T/E), 587 (L)

Fourier transform, radiative measurements and temperature inversion (E/T), 347 (L)

Grating, high resolution at NBS, 42 (N)

Grating, in-place, stray light reduction (E/T), 1029

Infrared

Absolute calibration source for laboratory and satellite, (E), 1183

Littrow-McCubbin high resolution (E), 457

Operating parameter optimization (R, E), 257

Interferometer used as an optical chopper (T), 1780

Multiple entrance slits, 1526 (P)

Prism, computer calibration of the wavelength drive (E/T), 275 Rapid-scan

High resolution (E), 279

Sweeps corner mirrors through spectrum (E), 267

Slit width and grating position measuring device, 527 (P)

Synchronized high speed (E), 885

System for studying absorption from metastable ion states in crystals (E), 877

Upper atmosphere studies (R, E), 1609

Wavelength computer remote control system, 1586 (P)

Spectrometry

Fabry-Perot, improvement (E/T), 467

Fourier

Balloon (E), 209

Dispersive, convergence correction (T), 980 (L)

Spectrophotometry

Cell for live zero determinations of sample total absorption, 528 (P)

Comparison of radiation in two different spectral regions, 592 (P)

Infrared, measurement of cell thickness (T), 477

Oscillating beam switching mirror mount, 1585 (P)

Photographic, computer processing for absolute intensities (E), 1507

Ratio recording, 595 (P)

Recommended practices, ASTM, 173 (B)

Solar, high resolution, from rapid spectral scanning (E), 1433 (L)

Time ratio, 880 (P)

Spectropolarimeter

Automatic recording magnetooptical rotation (E), 699 Quartz crystal prisms with mirrors, 527 (P)

Spectroradiometer

Synchrotron radiation as fundamental radiometric standard (E), 1043

Versatile, for measurements of spectral radiance, irradiance, transmittance, and reflectance (E), 1639

UBVRI measurements for wide band sensor magnitudes (T). 2009 (L)

Spectroscope

Fast Fourier transform for unequal number of input and output points (T/E), 1432 (L)

December 1967 / Vol. 6, No. 12 / APPLIED OPTICS 2225

Focal isolation monochromator, 528 (P)

Reflectance accessory for measurement of bidirectional (E), 1687

Spectroscopy

Absorption, of small samples with modified King furnace (E), 1299

Absorption, using optical correlation for detection of trace amounts of SO₂ (E), 776 (L)

Conference, Bombay, 836 (MR)

Data, computer automatic reduction (E), 2085

High resolution for even radioactive isotope quadrupole moments (E), 1649

Infrared

Copper-doped germanium detector (E), 1131 (L)

Far, grating, and spectral purity (E), 1259

Fourier transform techniques, asymmetric, for HCl rotational line strengths (E), 1527

Thin plates for attenuated total reflection, 528 (P)

Ionic beam source properties (E), 1309

Molecular

Electronic, Gordon conference, 850 (N)

Multilingual dictionary of terms, 1068 (B)

Structure and, symposium, Ohio State University, 470 (N)

Supplement, 1067 (B)

Vibrational energy level population in optically pumped AgCl vapor (E), 1545

Nitric oxide fundamental integrated intensity (E), 1305

Optics, conference, Tokyo and Kyoto, 177 (B)

Plasma

Diagnostics by (R), 983

Light source, 595 (P)

Vacuum uv and soft x-ray region (E/T), 2071

Rapid scan, by sweeping corner mirrors through spectrum (E), 267

Reflectance, 176 (B)

Research at McLennan Physical Laboratories, University of Toronto (R), 1597

Self-modulating, derivative, optical (E), 417

Soviet developments (R), 1783

Space research, 20 years of (R), 2044

Specular reflection, and x-ray studies of crystal structure of auramine perchlorate (E), 2091

Symposium, Ohio State University, 316 (MR)

Ultraviolet

Emission source (E), 409

Extreme, synchrotron, instrumental aspects (E), 31

Spectrum Analysis

Optical, of applied data signal, 594 (P)

Spectrum Analyzer

Real-time electrooptical signal processors with coherent detection (E/T), 1367

Spheres

Concentric, optical efficiency factors (T), 1555

Standards

Krypton-86 lamp, 68 (N)

Metric length and mass at NBS, 26 (N)

Photographic, NBS, (R), 27

Radiometric, fundamental, synchrotron radiation (E), 1043

Reference (R), 1127 (L)

Reflectance, proposed (E), 979 (L)

Tungsten-filament lamp, new, of total irradiance (E), 101

Wavelength, in the infrared, 466 (B)

Stereoscopy

Display using rapid varifocal mirror oscillations (E), 1085

System with shutter element adjacent to the object lens, 1586 (P)

Stratosphere

Aspects, discussion, 864 (B)

Humidity measurements from solar radiation absorption (E), 1845

Meteorological problems, 864 (B)

Stroboscopy

Industrial, 781 (B)

Structure

Molecular, 1068 (B)

Sulfur Dioxide

Trace detection by optical correlation in absorption spectra (E), 776 (L)

Sun

Radiation absorption to determine atmospheric moisture (E), 1845

X-rays, origin and production mechanism (E), 1834

Sun-Seeker

Balloon-borne, improvements (E), 235

Curtocar

Precise measurement of planeness (E/T), 1077

Smoothness and thermal stability of Cer-Vit optical material (E), 1275 (L), 1584

Surveying

Meeting, Washington, D. C., 1562 (MR)

Synchrotron

Radiation as fundamental radiometric standard (E), 1043

Ultraviolet, extreme, instrumental aspects (E), 31

Targets

Periodic, truncated one-dimensional, diffraction images (T), 545

Tektites

Infrared reflectance and optical constants (E), 586 (L)

Telescopes

Astronomical, new type, with extra large aperture (T), 976 (L)

Guidance by off-set sun tracking (E), 213

Opties (E), 179

Cassegrain light shield design (T), 1063

Galilean, in bifocal spectacles for close objects, 1142 (P)

High precision new, for observatories, 362 (N)

Optical, new, under construction, 361 (N)

Optical, 3.8 m in Chile, 2135 (N) Queen Elizabeth II, optics, 1635

Schmidt, flat-field, 3048-mm, f/2.5 (E), 1069

Schmidt-Cassegrain system with flat field (T), 976 (L); 1436

Star pointing device on rocket, 361 (N)

Ultraviolet for rocket-borne instrumentation (E), 570 (L)

Television

Camera system image intensifier (T), 2179 Spot luminance analyzer, 945 (P)

Television Tube

Fiber optics use, 1586 (P)

Temperature

Doppler, measurement using two-channel Fabry-Perot interferometer (E), 1205

Low, seminar, NBS, 148 (N)

Remote sensing of surface and cloud, using 899 $\rm cm^{-1}$ interval (E/T), 911

Variation on infrared filter characteristics (T/E), 1343

Thallium lodide

Effect on arc temperature of Hg discharges (T/E), 1563

Thermal Enhancement

Fine detail in presence of large radiance difference (E/T), 505

Thermal Expansion

Cer-Vit material in low expansion reference optical cavities (E), 1138 (L)

Thermal Imaging

Earth-based infrared lunar mapper (E), 1111 Evaporographic quality (E/T), 1851

Thermisto

Immersed, bolometer arrays (E), 1327

Thermoelectric Materials

Semiconductors, p-type, 1544 (P)

Thermograph

Heat distribution measurements in electronic chassis, 362 (N)

Thermopile

Absolute detector in extreme uv (E), 1886 Gas-filled, improved responsivity (E), 2196 (L)

Thermosphere

Aspects, discussion, 864 (B)

Thickness

Distribution of dielectric films, effective refractive index (T/E), 727

Thin Films

Aluminum overcoat on iridium, reflectance at 500 Å to 2000 Å (T), 2097

Frustrated total reflection filter, modified, analysis (T), 355 (L)

Interference filter, reflecting, in ultraviolet and infrared, 592 (P)

Multilayer synthesis, rational function approach (T), 331
Optical means of enhancing the sensitivity of tri-alkali photo-

Optical means of enhancing the sensitivity of tri-alkali photo cathode (E/T), 1171

Phase shift use for determination of optical thickness in vacuum (E), 793

Photoemission optical factors (T), 2163

Physics, 2175 (B)

Physics, basic problems, 442 (B)

Refractive index and thickness calculation by ellipsometry (T), 168 (L)

Studies at Naval Research Laboratory, 2029

Thickness of thin coatings in vacuum determination (E), 793

Transmission, Transmittance, Transmissivity

Determination of optical constants (T), 587 (L)

Filters, far infrared bandpass, and measurements on a reciprocal grid (E), 893

Lens measurement (E), 1140 (D)

Multilayer synthesis by rational function approach (T), 331

Near infrared atmospheric absorption over 25-km horizontal path at sea level (E), 489

Optical materials from 0.17 µ to 3.0 µ (E), 1896

Properties of duct with collimated beam (T), 1767

Spectral, through haze, comparison of computed and experimental (E), 929

Visible and infrared of atmosphere, 2020 (B)

Water, distilled and sea (E), 2101

Transmitter

Device for optical communications, 528 (P)

Tracking

Frequency modulated, high resolution, 528 (P)

Horizon, photosensitive, 594 (P)

Laser, cw system (E), 1579 (L)

Light sensitive orienting device, 1586 (P)

Optical, light modulation system, 592 (P)

Optomechanical, 1522 (P)

Reticle for FM chopping of point-target image, 1104 (P)

Scanner for, 1512 (P)

Star, photomultiplier tubes (É), 239

Star, with circular scanning pattern and square aperture, 592 (P)

Sun, off-set, for balloon-borne telescopes (E), 213

Triplet State

Symposium, Beirut, 1031 (MR)

Tunneling

Optical and application to optical filters (T), 897

Turbulence

Atmospheric in optical surveillance systems (T), 1984

Differential-interferometer seeing meter (E), 1136 (L)

Time-resolved measurements of phase fluctuations of coherent beam after passing turbulent layer (E), 1273

Wave propagation, 2018 (B)

Twilight

Study in atmospheric optics, 2010 (B)

Twyman-Green Interferometer

Laser unequal path, for optical shop (E), 1237 Multipass (E), 1425 (L)

Ultraviolet

Absorption spectra index, 383 (B), 1657 (B)

Detection system with contamination free electrodes, 528 (P) Detectors, photomultiplier extension to (E), 1577 (L)

Extreme

Photomultipliers (E), 385

Photomultipliers, open structure, performance in 1100 Å to 250 Å wavelength region (E), 1319

Source, new (E), 571 (L)

Synchrotron, instrumental aspects (E), 31

Far, reflective scattering from substrates and evaporated films (E), 719

Filtering properties of the alkali-halide vapors and chlorine (E), 165 (L)

Ionization chamber and thermopile detectors for (E), 1886

Installations for irradiation of man, cattle and poultry (E), 1872

Lamps, rare gas resonance, improved lithium fluoride window, 2135 (N)

Measurements in planetary atmospheres (E), 397

Mercury vapor detector, 1512 (P)

Middle

Books, 383 (B), 1075 (B)

Solar flux scattering by the atmosphere (T/E), 373

Solar spectroscopy from rockets by echelle spectrograph (E), 365

Near, atmospheric spectral radiance at 35 km (E), 1487

Polarimetry, using high altitude balloons (E), 231

Polarizers, 1544 (P); 1544 (P)

Radiation, 383 (B)

Scattering from quartz (E), 1576 (L)

Sensitivity, increased, with sodium salicylate-photomultiplier combination (E), 350 (L) Source

Emission, capillary discharge (E), 409

For double beam fluorometer, 592 (P)

Transmittance of optical materials from 0.17 μ to 3.0 μ (E), 1896 Vacuum

Absorption coefficient and photoionization yield of NO in region 580-1350 Å (E), 391, 1220

Flash lamp, high intensity, for photochemical studies (E), 415

Flash photolysis apparatus (E), 47

Plasma spectroscopy in (E/T), 2071

Polarizer, (E), 1001

Reflectance of aluminum overcoated iridium (T), 2097

Research (E), 396 (R, E), 403

Solar radiation studies in USSR (E), 1834

United States

Interacademy exchange with USSR, 1884

Units

Degree of applicability and consequences of inappropriate use of light, (T/E), 1473

Weight and measure, metric and U.S. customary conversion tables, 2114 (N)

USSR

Abstracting and information handling, 2015 (N)

Development of optics and spectroscopy in past 50 years (R), 1783

Expoopties, 2016 (N)

Induced combination of radiation studies (E), 1805

Interacademy exchange with U.S., 1864

Shortwave solar radiation studies (E), 1834

van Heel, A. C. S.

Biography, 799

Verdet Coefficient

Determination in semiconductors and insulators (R, T/E), 661

Vibration

Compensation in viewing device, 1586 (P)

Curve, relevant work (E/T), 1877

Visibility

Underwater improvement by circular polarization technique to reduce backscatter (E/T), 741

Vision

Interior light evaluation on basis of visual criteria (E), 1443

Light and, 1041 (B)

Lighting and visual tasks (E/T), 1866

Optical Society of America Technical Group, 135 (N)

Photopic, mesotopic and scotopic (E/T), 1877

Progress in physiological optics (R), 1283

Science, 2139 (B)

Science center, 1303 (N)

Symposium, University of Rochester, 1303 (N)

Voigt Effect

Bibliography, 626

History, 674

Water

Atmospheric determination by solar radiation absorption (E),

Distilled and sea, transmittance (E), 2101

Gaseous, attenuation of millimeter wavelength radiation (T), 1391

Optics studies at Naval Research Laboratory (R), 2029

Vapor

Absorption of visible and near infrared radiation (E), 709 Attenuation at millimeter radiation (T), 2005 (L) **Wave Propagation**

Turbulence, 2018 (B)

Wavefront Reconstruction

Double images in copy holograms (E/T), 588 (L)

Multicolor (E/T), 529

Multicolor white light, experimental techniques (E), 1255

Waveguides

Dihedral optical resonators and prism beam (T), 865

Wavelength Calibration

Drive of a prism spectrometer, computer calculated (E), 275

Wavelength Measurements

Rapid precision apparatus (E), 807

Windows

Instrument, glass sandwich, 1587 (P)

Wire Testing

Double, spherical aberration analysis (E), 1073

Wollaston Prisms

Multiple imaging device (E/T), 1275 (L)

X-Rays

Analysis

Conference on applications, 2078 (MR)

For substances, 1566 (P)

Using electron probe, 1586 (P)

Beam attenuator, 1518 (P)

Beam modulation device, 1526 (P)

Crystal structure of auramine perchlorate (E), 2091

Diffraction, anomalous scatterers, use of several wavelengths (T), 2132

Diffraction tables, 917 (B), 1220

Film response calibration in 5 keV to 1.3 MeV region (E), 2136

Filter positioners, 1526 (P)

Fluorescence, 172 (B)

Pulsed supply, 1566 (P) Solar, origin and production mechanism (E), 1834

Spectra, soft, from molecular emissions (E), 39

Spectrographic apparatus with x-ray tubes with different emission properties, 1526 (P)

Spectrometer, focusing, 1587 (P)

Spectroscope, detector for varying wavelengths, 1522 (P)

Spectroscopy, summer clinic, 968 (N)

Studies at Naval Research Laboratory in optics, diffraction and astronomy (R), 2029

System for image in color, 1518 (P)

Target, 1522 (P)

Xerography

Apparatus for developing electrostatic image, 1586 (P)

Contrast control device, 592 (P)

Development method and apparatus, 1544 (P)

Development method and modulation transfer function (T), 943

Electrophotographic material and process, 1585 (P)

Electrostatic image development method and apparatus, 1120 (P); 1518 (P); 1585 (P)

Electrostatic powder cloud development method and apparatus, 1585 (P)

Induction image formation system, 1544 (P)

Masked plate, 1566 (P)

Method of preparing letter-press plates, 1518 (P)

Process of using novel plate, 1544 (P)

Zeeman Effect

Bibliography, 603

Discharge tube frequency monitor (E/T), 695

Author Index to Volume 6

Prepared by Vance Weaver Composition Inc.

ACKERMAN, S.

A Programmed Multipulse Range Measurement System-S. Ackerman, T. S. Morrison, and R. L. Iliff. 6, 353(L) (1967)

Analysis of a Programmed Multipulse Laser Range Measurement System-T. S. Morrison and S. Ackerman. 6, 1725

ADAMS, G. F.

Recording Parameters of Spatially Modulated Coherent Wavefronts-A. A. Friesem, A. Kozma, and G. F. Adams. 6, 851 (1967)

ALEKSOFF, Carl

Gas Lasers as Sources for Holography-Carl Aleksoff. 6, 2192(L) (1967)

ALI, A. W.

Theory of the Pulsed Molecular Nitrogen Laser-A. W. Ali, A. C. Kolb, and A. D. Anderson. 6, 2115 (1967)

Folded Laser Raman Source-W. H. Fletcher, J. D. Allen, and W. J. Wiley. 6, 1129(L) (1967)

Vibrational Energy Level Population in Optically Pumped AgCl Vapor-L. Allen and D. G. C. Jones. 6, 1545 (1967)

ALLIN, Elizabeth J. Spectroscopy Research at the McLennan Physical Laboratories of the University of Toronto-Elizabeth J. Allin,

A. D. May, B. P. Stoicheff, J. C. Stryland, and H. L. Welsh. 6, 1597 (1967)

ALLPHIN, Willard

Lamps and Lighting. Edited by H. Hewitt and A. S. Vause -Book Review by Willard Allphin. 6, 1548(B) (1967)

SPSE Symposium on Progress in Photographic Science, Chicago, Illinois, 17-18 May 1967-J. H. Altman. 6. 2023(MR) (1967)

AMON, Max

Color-Corrected Mangin Mirror-Seymour Rosin and Max Amon. 6, 963 (1967)

ANDERSON, A. D.

Theory of the Pulsed Molecular Nitrogen Laser-A. W. Ali, A. C. Kolb, and A. D. Anderson. 6, 2115 (1967)

ANDERSON, M. M.

Laser Harmonics Useful for Frequency Translation-W. S. Lovell, M. M. Anderson, and F. E. Seiller. 6, 1430(L) (1967)

ANDRADE, O.

New Lines in a Pulsed N2 Laser-O. Andrade, M. Gallardo, and K. Bockasten. 6, 2006(L) (1967)

Direct Solar Radiation up to 30 km and Stratification of Attentuation Components in the Stratosphere-K. Ya. Kondratiev, G. A. Nicolsky, I. Ya. Bandinov, and S. D. Andreev. 6, 197 (1967)

ANDREW, Kenneth L.

A Least-Squares Deconvolution Technique for the Photoelectric Fabry-Perot Spectrometer-Harold P. Larson and Kenneth L. Andrew. 6, 1701 (1967)

AOKI, Yoshinao

Microwave Holograms and Optical Reconstruction-Yoshinao Aoki. 6, 1943 (1967)

ARM. Moses

Real-Time Electrooptical Signal Processors with Coherent Detection-Marvin King, William R. Bennett, Louis B. Lambert, and Moses Arm. 6, 1367 (1967)

ARONOWITZ, Frederick

Zeeman Discharge Tube Frequency Monitor-Frederick Aronowitz, Harry A. Gustafson, and Joseph E. Killpatrick. 6, 695 (1967)

ASARS, Juris A.

A High Resolution Rapid-Scanning Spectrometer-Irving Liberman, Charles H. Church, and Juris A. Asars. 6, 279 (1967)

ASCOLI-BARTOLI, U.

An Improvement in Fabry-Perot Spectrometry-U. Ascoli-Bartoli, G. Benedetti-Michelangeli, and F. DeMarco. 6. 467 (1967)

ASHBURN, Edward V.

Twilight-A Study in Atmospheric Optics. Georgii Vladimirovich Rozenberg. Translated from the Russian by Richard B. Rodman-Book Review by Edward V. Ashburn. 6, 2019(B) (1967)

ATMOSOEKARTO, Soemitro

Infrared Spectroscopy with a Copper-Doped Germanium Detector-T. K. McCubbin, Jr., Soemitro Atmosoekario, and Victor Withstandley. 6, 1131(L) (1967)

Infrared Transmission Polarizers by Photolithography-J. P. Auton. 6, 1023 (1967)

AVIV. Yair

Integrated Intensity of NO Fundamental-U. P. Oppenheim, Yair Aviv, and Aharon Goldman. 6, 1305 (1967)

BAIRD, K. M.

On Optics in Canada-K. M. Baird. 6, 1589 (1967) Temperature Compensated Gas Laser-D. S. Smith, L. H. Jones, and K. M. Baird. 6, 2195(L) (1967)

BAKER, Martin L. .

Effects of the Variation of Angle of Incidence and Temperature on Infrared Filter Characteristics-Martin L. Baker and Victor L. Yen. 6, 1343 (1967)

BALDWIN, William J.

Determination of the Information Storage Capacity of Photochromic Glass with Holography-William J. Baldwin. 6, 1428(L) (1967)

BALL, S. L.

Near Infrared Atmospheric Absorption Over a 25-km Horizontal Path at Sea Level-John L. Streete, J. H. Taylor, and S. L. Ball. 6, 489 (1967)

BALLANTYNE, J. M.

Double Beam Operation of a Fourier Spectrometer-J. M. Ballantyne. 6, 587(L) (1967)

BALLARD, Stanley S.

Optical Activities in the Universities-Stanley S. Ballard. 6, 50, 694, 1087, 1307, 2013 (1967)

BANDINOV, I. Ya.

Direct Solar Radiation up to 30 km and Stratification of Attentuation Components in the Stratosphere-K. Ya. Kondratiev, G. A. Nicolsky, I. Ya. Bandinov, and S. D. Andreev. 6, 197 (1967)

BARAKAT, Richard

Diffraction Images of Truncated, One-Dimensional Periodic Targets-Richard Barakat and Steven Lerman. 6, 545 (1967)

BARONE, S. R.

Optical Resonators in the Unstable Region-S. R. Barone. 6, 861 (1967)

BARR, E. Scott

Men and Milestones in Optics. V: Michael Faraday-E. Scott Barr. 6, 631 (1967)

BARR, Francis H.

On the Elimination of the Lumen from the Responsivity Calibration of Photodetectors-Francis H. Barr and Edward H. Eberhardt. 6, 1575(L) (1967)

BARRAKETTE, E. S.

Reactive Optical Information Processing. I: Theory of Information Recovery and Resonator Mode Structure-R. V. Pole, N. Wieder, and E. S. Barrakette. 6, 1571 (1967)

Atmospheric Scattering of the Solar Flux in the Middle Ultraviolet-R. T. Brinkmann, S. E. S. Green, and C. A. Barth. 6, 373 (1967)

BARTKY, Charlotte

Comparison of Fog Scattered Laser and Monochromatic Incoherent Light-Elias Resiman, Gordon Cumming, and Charlotte Bartky. 6, 1969 (1967)

BARTLESON, C. J.

Anisotropy in Alphanumeric Reproduction Tolerances-C. J. Bartleson. 6, 341 (1967)

Light and Vision. Conrad G. Mueller, Mae Rudolph, and the Editors of Life-Book Review by C. J. Bartleson. 6, 1041(B)

BARTOE, O. E., Jr.

Image Velocity Sensing with Moving Reticle Scanners-Paul F. Hultquist and O. E. Bartoe, Jr. 6, 1387 (1967)

BARTOLOTTA, C.

Diffraction Patterns of Chinese Characters-B. J. Pernick, C. Bartolotta, and D. Yustein. 6, 1421(L) (1967)

BASOV, N. G.

Laser Application for the Production and Diagnostics of Pulsed Plasma-N. G. Basov, O. N. Krokhin, and G. V. Sklizkov. 6, 1814 (1967)

A Vacuum Ultraviolet Flash Photolysis Apparatus-W. Braun, Arnold M. Bass, and A. E. Ledford, Jr. 6, 47 (1967)

BAUMEISTER, Philip W.

Analysis of a Modified Frustrated Total Reflection Filter-G. R. Noyes and P. W. Baumeister. 6, 355(L) (1967) Optical Tunneling and Its Application to Optical Filters-Philip W. Baumeister. 6, 897 (1967)

BECKER, Randolph A.

Optical Material Problems of Interplanetary Space-Randolph A. Becker. 6, 955 (1967)

BECKERS, J. M.

The Solar Atmosphere. H. Zirin-Book Review by J. M. Beckers. 6, 910(B) (1967)

Variations in the Birefringence of Quartz-J. M. Beckers. 6, 1279(L) (1967)

BEER, Reinhold

Fourier Spectrometry from Balloons-Reinhard Beer. 6, 209 (1967)

BEHRNDT, K. H.

Basic Problems in Thin Film Physics. Edited by R. Niedermayer and H. Mayer-Book Review by K. H. Behrndt. 6. 442(B) (1967)

BEN-ARYEH, Y.

Spectral Emissivity Calculations by the Statistical Model Applied to the 4.3- Bands of CO2 at High Temperatures-Y. Ben-Aryeh. 6, 1049 (1967)

BENEDETTI-MICHELANGELI, G.

An Improvement in Fabry-Perot Spectrometry-U. Ascoli-Bartoli, G. Benedetti-Michelangeli, and F. DeMarco. 6, 467 (1967)

BENEDICT, Robert A.

Measurement of the Room Temperature R1 Line Width of Forty-Two Rubies-Robert A. Benedict, James F. Nester, and Charles M. Kellington. 6, 429 (1967)

BENFORD, James R.

International Microscopy Symposium, Chicago, 15-19 August 1966-James R. Benford. 6, 286(MR) (1967)

BENNETT, H. E.

Infrared Reflectances of Metals at Cryogenic Temperatures-A Compilation from the Literature. P. F. Dickson and M. C. Jones-Book Review by H. E. Bennett. 6, 924(B) (1967)

BENNETT, Jean M.

Smoothness and Thermal Stability of Cer-Vit Optical Material-Ralph W. Dietz and Jean M. Bennett. 6, 1275(L) (1967)

BENNETT, William R.

Real-Time Electrooptical Signal Processors with Coherent Detection-Marvin King, William R. Bennett, Louis B. Lambert, and Moses Arm. 6, 1367 (1967)

BERDOWSKI, W.

Radiofrequency Source of Potassium Resonance Radiation for Use in Kilogauss Magnetic Fields-W. Berdowski, T. Shiner, and L. Krause. 6, 1683 (1967)

BERGER, T.

Practical Design of Infrared Detector Circuits-T. Berger and E. Brookner. 6, 1189 (1967)

BERGSTEIN, L.

Further Comments on the Theory of the Frustrated Total Reflection Filter-L. Bergstein. 6, 2002(L) (1967)

BERREMAN, Dwight W.

Kramers-Kronig Analysis of Reflectance Measured at Oblique Incidence-Dwight W. Berreman. 6, 1519 (1967) BERRY, G. V.

Differential-Interterometer Seeing Meter-R. C. Ward and G. V. Berry. 6, 1136(L) (1967)

BEST, G. T.

Fabry-Perot Interferometers with Electronic Determination of Doppler Line Widths-G. T. Best. 6, 287 (1967)

A Littrow-McCubbin High Resolution Infrared Spectrometer -John Overend, A. C. Gilby, J. W. Russell, C. W. Brown, J. Beutel, C. W. Bjork, and H. G. Paulat. 6, 457 (1967)

BIBERMAN, Lucien M.

OSA Technical Groups-L. M. Biberman. 6, 135, 455, 1624 (1967)

Modern Optical Engineering: The Design of Optical Systems. Warren J. Smith-Book Review by Lucien M. Biberman. 6, 905(B) (1967)

Apples, Oranges, and Unlumens-Lucien M. Biberman. 6, 1127(L) (1967)

BICKEL, William S.

The Spectroscopic Properties of the Ionic Beam Source—William S. Bickel. 6, 1309 (1967)

BIRKS, L. S

Quantitative Calibration of X-ray Response in the 5-keV to 1.3-MeV Region—C. M. Dozier, J. V. Gilfrich, and L. S. Birks. §, 2136 (1967)

BJORK, C. W.

A Littrow-McCubbin High Resolution Infrared Spectrometer—John Overend, A. C. Gilby, J. W. Russell, C. W. Brown, J. Beutel, C. W. Bjork, and H. G. Paulat. 6, 457 (1967)

BLACKWELL, H. Richard

The Evaluation of Interior Lighting on the Basis of Visual Criteria-H. Richard Blackwell. 6, 1443 (1967)

BLAU, H. H., Jr.

Reflection and Polarization Properties of Powder Materials
—H. H. Blau, Jr., E. L. Gray, and G. M. B. Bourioius.
6, 1899 (1967)

BLAZEY, Richard

Light Scattering by Laser Mirrors-Richard Blazey. 6, 831 (1967)

BOCKASTEN, K.

New Lines in a Pulsed N₂ Laser-O. Andrade, M. Galiardo, and K. Bockasten. <u>6</u>, 2006(L) (1967)

BOILEAU, Almerian R.

Changes in Spectral Sensitivity of Multiplier Phototubes Resulting from Changes in Temperature—Almerian R. Boileau and Floyd D. Miller. 6, 1179 (1967)

BOIVIN, Albéric

Apport du Canada français aux progrès récents de l'optique —Albéric Boivin. 6, 1625 (1967)

BOLSTAD, J. O.

Holograms and Spatial Filters Processed and Copied in Position—J. O. Bolstad. 6, 170(L) (1967)

BONFIGLIOLI, G.

Self Modulating, Derivative Optical Spectroscopy. Part II: Experimental—G. Bonfiglioli, P. Brovetto, G. Busca, S. Levialdi, G. Palmieri and E. Wanke. <u>6</u>, 447 (1967)

BORRELLI, N. F.
Damage in Glass Induced by Linear Absorption of Laser
Radiation—R. A. Miller and N. F. Borrelli. 6, 164(L)
(1967)

BOSTWICK, D.

Some Effects of Emulsion Shrinkage on a Hologram's Image Space—D. H. R. Vilkomerson and D. Bostwick. 6, 1270(L) (1967)

BOTTEMA, Murk

Guiding of Balloon-Borne Telescopes by Off-set Sun-tracking-Murk Bottema. 6, 213 (1967)

BOURIOIUS, G. M. B.

Reflection and Polarization Properties of Powder Materials
—H. H. Blau, Jr., E. L. Gray, and G. M. B. Bourioius.
6, 1899 (1967)

BOYNTON, Robert M.

Progress in Physiological Optics—Robert M. Boynton. 6, 1283 (1967)

BRACKENRIDGE, J. B.

Criteria for Quantitative Schlieren Interferometry—J. B. Brackenridge and J. Peterka. 6, 731 (1967)

BRANDT, G. B.

Hologram-Moiré Interferometry for Transparent Objects— G. B. Brandt. 6, 1535 (1967)

BRAUN, W.

A Vacuum Ultraviolet Flash Photolysis Apparatus—W. Braun, Arnold M. Bass, and A. E. Ledford, Jr. 6, 47 (1967) BREED, Henry E.

Modern Optics. Earle B. Brown-Book Review by Henry E. Breed. §, 226(B) (1967)

BREENE, R. G., Jr.

Spectral Line Broadening in Air Molecule Systems-R. G. Breene, Jr. 6, 141 (1967)

BREWER, S. H.

Physical Optics in Photography. Georg Franke-Book Review by S. H. Brewer. 6, 466(B) (1967)

BRINKMAN, R. T.

Atmospheric Scattering of the Solar Flux in the Middle Ultraviolet—R. T. Brinkmann, S. E. S. Green, and C. A. Barth. 6, 373 (1967)

BRIXNER. Berlyn

A 3048-mm, f/2.5, Flat-Field Schmidt Telescope Design— Berlyn Brixner. 6, 1069 (1967)

BRODHEAD, D. C.

The Ultraviolet Filtering Properties of the Alkali-Halide Vapors and Cl₂-P. Davidovits and D. C. Brodhead. <u>6</u>, 165(L) (1967)

BROMBACH, J. D.

XUV Spectra of a New Light Source-J. D. Brombach and E. Schönheit. 6, 571(L) (1967)

BROOKNER, E.

Practical Design of Infrared Detector Circuits-T. Berger and E. Brookner. 6, 1189 (1967)

BROOKS, Robert E.

Low-Angle Holographic Interferometry Using Tri-X Pan Film-Robert E. Brooks. 6, 1418(L) (1967)

BROVETTO, P.

Self Modulating, Derivative Optical Spectroscopy. Part Ii: Experimental—G. Bonfiglioli, P. Brovetto, G. Busca, S. Levialdi, G. Palmieri and E. Wanke. 6, 447 (1967)

BROWN, C. W.
 A Littrow-McCubbin High Resolution Infrared Spectrometer
 —John Overend, A. C. Gilby, J. W. Russell, C. W. Brown,
 J. Beutel, C. W. Bjork, and H. G. Paulat. 6, 457 (1967)

BROWN, D. E.

A General Relation for D*_{\(\hat\phi\kappa}

BROWN, Earl B.

Photographic Systems for Engineers. Edited by F. M. Brown, H. J. Hall and J. Kosar-Book Review by Earl B. Brown. <u>6</u>, 1317(B) (1967)

BROWN, Frederick C.

Magnetooptical Experiments on Broad Absorption Bands in Solids—Frederick C. Brown and George Laramore. 6, 669 (1967)

BROWN, R. G.

Plastic Fiber Optics. I: Transmission of Ruby Laser Radiation—R. G. Brown. 6, 1269(L) (1967)

BRUMM, D. B.

Double Images in Copy Holograms—D. B. Brumm. 6, 588(L) (1967)

BRUNER, E. C., Jr.

Electronic Enhancement of Faint Photographic Spectra—E. C. Bruner, Jr., and Vladimir Degen. 6, 1427(L) (1967)

BRYANT, John F.

Diffraction Patterns of Alphanumeric Characters—John F. Bryant, W. Thomas Hyde, and Howard E. Morrow. 6, 170(L) (1967)

BRYNGDAHL, Olof

A Lateral Wavefront Shearing Interferometer with Variable Shear—Adolf Lohmann and Olof Bryngdahl. 6, 1934 (1967) BUCCINI, C. J.

A Laser Unequal Path Interferometer for the Optical Shop— J. B. Houston, Jr., C. J. Buccini, and P. K. O'Neill. <u>6</u>, 1237 (1967)

BUCHELE, D. R.

Comments on Astigmatism in the Mach-Sehnder Interferometer-Walton L. Howes and D. R. Buchele. 6, 1583(L) (1967)

BUCK, A. L.

Effects of the Atmosphere on Laser Beam Propagation— A. L. Buck. 6, 703 (1967)

BUHRER, C. F.

The Kerr Constant of Selenium Oxychloride—C. F. Buhrer, A. Heller, and A. Lempicki. 6, 1141(L) (1967)

BURCH, Darrell E.

Attenuation by Artificial Fogs in the Visible, Near Infrared, and Far Infrared—David R. Johnston and Darrell E. Burch. 6, 1497 (1967)

BURCKHARDT, C. B.

Storage Capacity of an Optically Formed Spatial Filter for Character Recognition—C. B. Burckhardt. 6, 1359 (1967) BURGE. E. J.

High Energy Beam Optics. K. G. Steffen—Book Review by E. J. Burge. 6, 233(B) (1967)

BURLAMACCHI, P.

Time-Resolved Measurements of the Phase Fluctuations of a Coherent Beam at the Emergence from a Turbulent Layer-P. Burlamacchi, A. Consortini, and L. Ronchi. 6, 1273(L) (1967)

BUSCA, G.

Self Modulating, Derivative Optical Spectroscopy. Part II: Experimental—G. Bonfiglioli, P. Brovetto, G. Busca, S. Levialdi, G. Palmieri and E. Wanke. <u>6</u>, 447 (1967)

BUTLER, C. D.
A Quantitative Brocken Observation—C. D. Butler. <u>6</u>, 2013(L) (1967)

BUTTREY, D. E.

A Streak Spectrograph with Microsecond Resolution—D. E. Buttrey. 6, 881 (1967)

BYER, R. L.

Laser Variable Output Coupler-R. L. Byer and V. R. Costich. 6, 578(L) (1967)

CAMM, John C.

Synchronized High Speed Scanning Infrared Spectrometer— John C. Camm, Raymond L. Taylor, and Robert Lynch. 6, 885 (1967)

CAMPBELL, J. W.

An Electronic Quadrature Technique for Laser Interferometry-J. W. Campbell and Virgil Erbert. 6, 1128(L) (1967) CAMUS, J.

Fresnel Zone Plate Generation—J. Camus, F. Girard, and R. Clark. 6, 1433(L) (1967)

CANFIELD, L. R.

Reflective Scattering from Substrates and Evaporated Films in the Far Ultraviolet—R. G. Johnston, L. R. Canfield, and R. P. Madden. 6, 719 (1967)

Comparison of an Ionization Chamber and a Thermopile as Absolute Detectors in the Extreme Ultraviolet—L. R. Canfield, R. G. Johnson, K. Codling, and R. P. Madden. <u>6</u>, 1886 (1967)

CARMAN, P. D.

A Precise Apertometer-P. D. Carman. 6, 1679 (1967) CARRIER, L. W.

The Backscattering and Extinction of Visible and Infrared Radiation by Selected Major Cloud Models-L. W. Carrier, G. A. Cato, and K. J. von Essen. 6, 1209 (1967)

CASPERS, H. H.

Liquid Phosphor Cell to Extend Photomultiplier Response to the Ultraviolet—H. E. Rast and H. H. Caspers. <u>6</u>, 1577(L) (1967)

CATO, G. A.

The Backscattering and Extinction of Visible and Infrared Radiation by Selected Major Cloud Models—L. W. Carrier, G. A. Cato, and K. J. von Essen. <u>6</u>, 1209 (1967)

CAULFIELD, H. J.

Digital Control of Focal Distances—H. J. Caulfield. 6, 549 (1967)

Light Pipe Holography—H. J. Caulfield and J. L. Harris. 6, 1272(L) (1967)

CHAMBERLAIN, J. E.

On a Convergence Correction for Dispersive Fourier Spectrometry—J. E. Chamberlain. 6, 980(L) (1967)

CHANEY, L. W.

Fourier Transform Spectrometer—Radiative Measurements and Temperature Inversion—L. W. Chaney, S. R. Drayson, and C. Young. §, 347(L) (1967)

CHAU, Henry H. M.

Zone Plate Theory Based on Holography-Melvin H. Horman and Henry H. M. Chau. 6, 317 (1967)

An Example of the Application of Pulsed Light Holography to Aerodynamics—H. H. M. Chau and G. J. Mullaney. <u>6</u>, 981(L) (1967)

Holographic Moiré Patterns: Their Application to Flow Visualization in Aerodynamics—Henry H. M. Chau and George J. Mullaney. 6, 1428(L) (1967)

CHECCACCI, P. F.

Unstable Region in the Flat-Roof Resonator-P. F. Checcacci, A. Consortini, and A. M. Scheggi. 6, 584(L) (1967) CHU. T. S.

On the Wavelength Dependence of the Spectrum of Laser Beams Traversing the Atmosphere-T. S. Chu. 6, 163(L) (1967)

CHURCH, Charles H.

A High Resolution Rapid-Scanning Spectrometer-Irving Liberman, Charles H. Church, and Juris A. Asars. <u>6</u>, 279 (1967)

The Spherical Reflector for Use in the Optical Pumping of Lasers—C. H. Church and I. Liberman. 6, 1966 (1967)

CIDDOR, P. E.

Apparent Shape of Broad-Band Multilayer Reflecting Surfaces—J. V. Ramsey and P. E. Ciddor. 6, 2003(L) (1967) CINDRICH, Ivan

Image Scanning by Rotation of a Hologram—Ivan Cindrich. 6, 1531 (1967)

CLARK, Arthur E.

6th Rare Earth Research Conference, Gatlinburg, 3-5 May 1967—Arthur E. Clark. 6, 1561(MR) (1967)

CLARK, H. L

Some Problems Associated with Airborne Radiometry of the Sea-H. L. Clark. 6, 2151 (1967)

CLARK, R.

Fresnel Zone Plate Generation—J. Camus, F. Girard, and R. Clark. 6, 1433(L) (1967)

CLIFFORD, Kenneth I.

Comments on Zone Plate Theory Based on Holography— Kenneth I. Clifford and Gary S. Waldman. 6, 1415(L) (1967) CODLING, K.

Instrumental Aspects of Synchrotron XUV Spectroscopy— R. P. Madden, D. L. Ederer, and K. Codling. 6, 31 (1967) Comparison of an Ionization Chamber and a Thermopile as Absolute Detectors in the Extreme Ultraviolet—L. R. Canfield, R. G. Johnson, K. Codling, and R. P. Madden. <u>6</u>, 1886 (1967)

COLLIER, R. J.

Multicolor Imaging from Holograms Formed on Two-Dimensional Media—R. J. Collier and K. S. Pennington. <u>6</u>, 1091 (1967)

COLOMBIER, M.

Interpretation corpusculaire de quelques données expérimentales ondulatoires—M. Colombier. 6, 2196(L) (1967)

CONDON, E. U.

Measures for Progress—A History of the National Bureau of Standards, by Rexmond C. Cochrane—E. U. Condon. 6, 9 (1967)

CONSORTINI, A.

Unstable Region in the Flat-Roof Resonator-P. F. Checcacci, A. Consortini, and A. M. Scheggi. 6, 584(L) (1967)

Time-Resolved Measurements of the Phase Fluctuations of a Coherent Beam at the Emergence from a Turbulent Layer-P. Burlamacchi, A. Consortini, and L. Ronchi. 6, 1273(L) (1967)

COOKE, Frank

Optical Activities in Industry-Frank Cooke. 6, 1437, 1501 (1967)

COOPER, H. G.

Electron Optics. P. Grivet, M. Y. Bernard, F. Bertein, R. Castaing, M. Gauzit, and A. Septier—Book Review by H. G. Cooper. 6, 175(B) (1967)

COCPER, John W.

Atomic Collisions: The Theory of Electron-Atom Collisions. Y. Y. Veldre—Book Review by John W. Cooper. <u>6</u>, 910(B) (1967)

COSTICH, V. R.

Laser Variable Output Coupler—R. L. Byer and V. R. Costich. 6, 578(L) (1967)

COTTRELL, T. H. E.

Transverse Mode Structure in Unstable Optical Cavities—
D. C. Sinclair and T. H. E. Cottrell. 6, 845 (1967)

COULMAN, C. E.

Optical Effects of Thermal Structure in the Lower Atmosphere—C. E. Coulman and D. N. B. Hall. 6, 497 (1967) COURTNEY, J. E.

Acoustical Resonances in Modulated Xenon and Krypton Compact Arc Lamps—C. F. Gallo and J. E. Courtney. 6, 939 (1967)

CRAWFORD, Bryce, Jr.

Multilingual Dictionary of Important Terms in Molecular Spectroscopy. Commission on Molecular Structure and Spectroscopy, IUPAC-Book Review by Bryce Crawford, Jr. 6, 1068(B) (1967)

CRAWFORD, James H., Jr.

International Solid State Conference, 3-8 September 1966, American University in Cairo-James H. Crawford, Jr. 6, 296(MR) (1967)

CRISWELL, David R.

Quadrant Photometer for Satellite-Borne Auroral and Optical Measurements—David R. Criswell and Brian J. O'Brien. 6, 1105 (1967)

CROCE, V.

Rapid Spectral Scanning Applied to High Resolution Solar Spectrophotometry—V. Croce and G. A. De Biase. 6, 1433(L) (1967)

CRUMLY, C. Burton

Comment on Optical Circulators-C. Burton Crumly. 6, # 1277(L) (1967) CUMMING, Gordon

Comparison of Fog Scattered Laser and Monochromatic Incoherent Light—Elias Resiman, Gordon Cumming, and Charlotte Bartky. 6, 1969 (1967)

CURCIO, J. A.

Atmospheric Propagation of Laser and Nonlaser Light-G. L. Knestrick and J. A. Curcio. 6, 1420(L) (1967)

Measurements of Spectral Radiance of the Horizon Sky-G. L. Knestrick and J. A. Curcio. 6, 2105 (1967)

CURRIE, G. D.

Photoconductive and Photovoltaic Spectral Response in PbI₂ Crystals—G. D. Currie, J. Mudar, and O. Risgin. <u>6</u>, 1137(L) (1967)

CURRY, George M.

Light: Physical and Biological Action. H. H. Seliger and W. D. McElroy—Book Review by George M. Curry. 6, 384(B) (1967)

DANIELSON, B. L.

An Optical Power Limiter—B. L. Danielson. 6, 158(L) (1967) DANTSIG, N. M.

Ultraviolet Installations of Beneficial Action—N. M. Dantsig, D. N. Lazarev, and M. V. Sokolov. 6, 1872 (1967)

DAVID, D. J.

Atomic Absorption Spectroscopy. James W. Robinson-Book Review by D. J. David. 6, 1658(B) (1967)

DAVIDOVITS, P.

The Ultraviolet Filtering Properties of the Alkali-Halide Vapors and Cl₂-P. Davidovits and D. C. Brodhead. <u>6</u>, 165(L) (1967)

DAVIES, M. Mansel

Dielectrics and Waves. A. von Hippel-Book Review by M. Mansel Davies. 6, 384(B) (1967)

DAVIS, Sumner P.

Problèmes d'Optique. M. Rousseau and J. P. Mathieu-Book Review by Sumner P. Davis. 6, 1041(B) (1967)

DE, M

Signal Detection by Correlation of Fresnel Diffraction Patterns-M. De and A. W. Lohmann. 6, 2171 (1967)

DE BIASE, G. A.

Rapid Spectral Scanning Applied to High Resolution Solar Spectrophotometry—V. Croce and G. A. De Biase. 6, 1433(L) (1967)

DEGEN, Vladimir

Electronic Enhancement of Faint Photographic Spectra—E. C. Bruner, Jr., and Vladimir Degen. §, 1427(L) (1967)

DE LANGE, O. E.

Laser Receivers, Devices, Techniques, Systems. Monte Ross-Book Review by O. E. De Lange. 6, 442(B) (1967)

DeMARCO, F

An Improvement in Fabry-Perot Spectrometry-U. Ascoli-Bartoli, G. Benedetti-Michelangeli, and F. DeMarco. 6, 467 (1967)

DeSHAZER, L. G.

Laser Mode Selection by Internal Reflection Prisms—L. G. DeShazer and E. A. Maunders. 6, 431 (1967)

DESLATTES, Richard D.

Molecular Emission Spectra in the Soft X-Ray Region— Richard D. Deslattes and Robert E. LaVilla. £, 39 (1967)

DeVANY, A. S.
Schmidt-Cassegrain Telescope System with a Flat Field: II

-A. S. DeVany. §, 976(L) (1967)

Spherical Aberration Analysis by Double Wire Testing— A. S. DeVany. 6, 1073 (1967)

DE WAARD, Russell

Miniature Optically Immersed Thermistor Bolometer Arrays
—Russell De Waard and Seymour Weiner. <u>6</u>, 1327 (1967)

APPLIED OPTICS / Vol. 6, No. 12 / December 1967 2233

DEZENBERG, George J.

The Use of a Multipath Cell as a CO₂-N₂ Gas Laser Amplifier and Oscillator-George J. Dezenberg and James A. Merritt. 6, 1541 (1967)

DHAWAN, M. M.

Transient Solutions to a Three Level Maser-M. L. Narchal, M. M. Dhawan, and M. R. Monga. 6, 723 (1967)

DIETZ, Ralph W.

Smoothness and Thermal Stability of Cer-Vit Optical Material—Ralph W. Dietz and Jean M. Bennett. 6, 1275(L) (1967)

DIJKSTRA, G.

Development of a Ring Laser for Polarimetric Measurements—H. J. Raterink, H. v. d. Stadt, C. H. F. Velzel, and G. Dijkstra. 6, 813 (1967)

DITZEL, Earle F.

A Computer Method for the Automatic Reduction of Spectroscopic Data—Earle F. Ditzel and Lorrain E. Giddings, Jr. 6, 2085 (1967)

DOLIN, Stanley A.

A Rapid-Scan Spectrometer That Sweeps Corner Mirrors Through the Spectrum-Stanley A. Dolin, Herman A. Kruegle, and Gunter J. Penzias. <u>6</u>, 267 (1967)

DOMALSKI, Eugene S.

Thermodynamics of Certain Refractory Compounds. Edited by Harold L. Schick—Book Review by Eugene S. Domalski. 6, 892(B) (1967)

DORIAN, M.

Measurement of the Atmospheric Spectral Radiance at 35 km in the Near Ultraviolet—M. Dorian and F. Harshbarger. <u>6</u>, 1487 (1967)

DOUGLAS, A. E.

Apparatus for the Observation of Optical Molecular Spectra
-A. E. Douglas and G. Herzberg. 6, 1593 (1967)

DOWLING, Jerome M.

Signal and Noise in Two-Beam Interferometry—Jerome M. Dowling. 6, 1580(L) (1967)

DOZIER, C. M.

Quantitative Calibration of X-ray Response in the 5-keV to 1.3-MeV Region—C. M. Dozier, J. V. Gilfrich, and L. S. Birks, 6, 2136 (1967)

DRAKE, R. P.

Fiber Optics Oximeter-Densitometer for Cardiovascular Studies—N. S. Kapany, D. C. Harrison, N. Silbertrust, R. P. Drake, T. McLaughlin, and H. A. Miller. <u>6</u>, 565 (1967)

DRAPER, James Stark

Analytical and Experimental Investigation of Light Scattering from Polydispersions of Mie Particles—Alfred C. Holland and James Stark Draper. 6, 511 (1967)

DRAYSON, S. R.

Fourier Transform Spectrometer—Radiative Measurements and Temperature Inversion—L. W. Chaney, S. R. Drayson, and C. Young. 6, 347(L) (1967)

DRUMMETER, L. F., Jr.

Relative Spectral Attenuation Coefficients of Water-L. F. Drummeter, Jr., and G. L. Knestrick. 6, 2101 (1967) Improved Responsivity of Gas Filled Thermopiles-L. F. Drummeter, Jr., and J. A. Sanderson. 6, 2196(L) (1967)

DUFFIEUX, P. Michel

Le théorème de Dirichlet et l'imagerie coherente-P. Michel Duffieux. 6, 323 (1967)

DUNN, S. Thomas

Reflectance Spectroscopy. Wesley W. Wendlandt and Harry G. Hecht—Book Review by S. Thomas Dunn. 6, 176(B) (1967)

Interferometer Spectrometer Used as an Optical Chopper— S. Thomas Dunn. <u>6</u>, 1780(L) (1967)

DUNN, Thomas M.

The Band Spectrum of Carbon Monoxide. Paul H. Krupenie
-Book Review by Thomas M. Dunn. 6, 465(B) (1967)

DUVAL, K.

Optical Superheterodyne Receiver-R. F. Lucy, K. Lang, C. J. Peters, and K. Duval. 6, 1333 (1967)

EBERHARDT, Edward H.

Multiplier Phototubes as Quantum Counters—E. H. Eberhardt. <u>6</u>, 161(L) (1967)

Threshold Sensitivity and Noise Ratings of Multiplier Phototubes-E. H. Eberhardt. 6, 251 (1967)

Noise Factor Measurements in Multiplier Phototubes—E. H. Eberhardt. 6, 359(L) (1967)

On the Elimination of the Lumen from the Responsivity Calibration of Photodetectors—Francis H. Barr and Edward H. Eberhardt. 6, 1575(L) (1967)

EDERER, D. L.

Instrumental Aspects of Synchrotron XUV Spectroscopy— R. P. Madden, D. L. Ederer, and K. Codling. 6, 31 (1967)

EDWARDS, J. G.

Some Factors Affecting the Pumping Efficiency of Optically Pumped Lasers—J. G. Edwards. §, 837 (1967)

The Effects of Scattering and Mirror Reflectivity on the Performance of a Ruby Laser-J. G. Edwards. 6, 1011 (1967)

EISENMAN, W. L.

Noise Spectra of a Liquid He Temperature Germanium Bolometer—J. D. Merriam, W. L. Eisenman, and A. B. Naugle. 6, 576(L) (1967)

ELDRIDGE, Ralph G.

Water Vapor Absorption of Visible and Near Infrared Radiation-Ralph G. Eldridge. 6, 709 (1967)

A Comparison of Computed and Experimental Spectral Transmissions Through Haze—Ralph G. Eldridge. <u>6</u>, 929 (1967)

ELLIOTT, William G.

An Index to Ultraviolet and Visible Absorption Spectra for 1960-1963. Herbert M. Hershenson-Book Review by William G. Elliott. <u>6</u>, 1714(B) (1967)

ELTON, R. C.

Plasma Spectroscopy in the Vacuum Ultraviolet and Soft X-ray Regions—R. C. Elton and N. V. Roth. <u>6</u>, 2071 (1967) ENGELHARDT, A. G.

The Variation of Beam Divergence Across Plane Interfaces
-A. G. Engelhardt. 6, 2010(L) (1967)

ERBERT, Virgil

An Electronic Quadrature Technique for Laser Interferometry—J. W. Campbell and Virgil Erbert. 6, 1128(L) (1967) ERCOLI, B.

A Modified King Furnace for Absorption Spectroscopy of Small Samples—F. S. Tomkins and B. Ercoli. <u>6</u>, 1299 (1967)

ERMINY, D. E.

Some Approximations to the Planck Function in the Intermediate Region with Applications in Optical Pyrometry— D. E. Erminy. 6, 107 (1967)

EVERITT, C. W. F.

Maxwell's Scientific Papers-C. W. F. Everitt. 6, 639 (19) EVTUHOV, V.

Multiple Pass Effects in High Efficiency Laser Pumping Cavities—V. Evtuhov and J. K. Neeland. 6, 437 (1967)

FABELINSKII, J. L.

Some Studies of the Spectra of Thermal and Stimulated Molecular Scattering of Light-I. L. Fabelinskii and V. S. Starunov. 6, 1793 (1967)

FAERMARK, M. A.

Lighting and Quantitative Parameters of Visual Tasks-V. V. Meshkov and M. A. Faermark. 6, 1866 (1967)

FAIN, D. L.

Torque Requirements for a Rotating Optical Chopper-D. L. Fain and W. H. Johnston. 6, 778(L) (1967)

FALCONE, Vincent J., Jr.

Comments on Attenuation of Millimeter Wavelength Radiation by Galbous Water Vapor-Vincent J. Falcone, Jr. 6, 2005(L) (1967)

FASSEL, V. A.

Spectrochemical Analysis: Optical Spectrometry, X-Ray Fluorescence, and Electron Probe Microanalysis (July 1964-June 1965). Bourdon F. Scribner, Editor-Book Review by V. A. Fassel. 6, 172(B) (1967)

FASTIE, W. G.

Ultraviolet Measurements in Planetary Atmospheres-W. G. Fastie. 6, 397 (1967)

FEDOROWICZ, R. J.

Multicolor Wavefront Reconstruction—A. A. Friesem and R. J. Fedorowicz. 6, 529 (1967)

FEIGEN I.

A Worst-Case Analysis of Continuous Wave He-Ne Laser Hazards to the Eye-W. P. Hansen, L. Feigen, and S. Fine. 6, 1973 (1967)

FEOFILOV, P. P.

Cooperative Luminescence of Solids-P. P. Feofilov and V. V. Ovsyankin. 6, 1828 (1967)

FINE. S

A Worst-Case Analysis of Continuous Wave He-Ne Laser Hazards to the Eye-W. P. Hansen, L. Feigen, and S. Fine. 6, 1973 (1967)

FINK, Uwe

A Balloon-Borne Diffusing System for Infrared Radiation from 1 μ to 5 μ -Uwe Fink and Paul Ville. 6, 1424(L) (1967) FISCHER, Heinz

On the Saturation Luminance of High Density Microsecond
Arc Channels—Heinz Fischer and Lothar Michel. 6, 935

Electrode Processes in a High Current 20 nsec Spark— Heinz Fischer and C. C. Gallagher. 6, 2176 (1967)

FISHTER, George

Training of Glassworkers and Technicians in the United Kingdom—George Fishter. 6, 1501 (1967)

FLETCHER, W. H.

Folded Laser Raman Source-W. H. Fletcher, J. D. Allen, and W. J. Wiley. 6, 1129(L) (1967)

FLOWERS, Wayne

Comments on Optical Characteristics of a Proposed Reflectance Standard—Grover Trytten and Wayne Flowers. 6, 979(L) (1967)

FOLEY, Richard

Making a High Efficiency Antihalation Backing for Photographic Plates which Eliminates Interference Bands Produced by Coherent Light-Richard Foley and Frank Wendt. §, 977(L) (1967)

ORBES, F. F.

Polarizer for the Vacuum Ultraviolet—D. L. Steinmetz, W. G. Phillips, M. Wirick, and F. F. Forbes. 6, 1001 (1967) FOREMAN, J. W.

Optical Path-Length Difference Effects in Photomixing with Multimode Gas Laser Radiation—J. W. Foreman, Jr. 5, 821 (1967)

FORKNER, John F.

A Photographic Recording Medium for 10.6-µ Laser Radiation —John F. Forkner and Dennis D. Lowenthal. 6, 1419(L) (1967)

FORSYTHE, J. G.

An Automatic Recording Magnetooptical Rotation Spectropolarimeter-J. G. Forsythe, R. Kieselbach, and V. E. Shashoua. <u>6</u>, 699 (1967)

FRANÇON, M.

Improvement of the Degree of Spatial Coherence in a Michelson Interferometer—M. Françon and S. Mallick. 6, 873 (1967)

FRATINI, A. V.

The Crystal Structure of Auramine Perchlorate: Correlation of the Results with Specular Reflection Spectroscopy—A. V. Fratini, I. L. Karle, and J. Karle. 6, 2091 (1967)

FRIDKIN, V. M.

Anomalous Shift of the Absorption Edge in Ferroelectric BaTiO₃ under an Electric Field—V. M. Fridkin and K. A. Verkhovskaya. <u>6</u>, 1825 (1967)

FRIED, D. L.

Heterodyne and Photon-Counting Receivers for Optical Communications—D. L. Fried and J. B. Seidman. §, 245 (1967) The Effect of Atmospheric Scintillation on an Optical Data Channel—Laser Radar and Binary Communications—D. L. Fried and R. A. Schmeltzer. §, 1729 (1967)

FRIESEM, A. A.

Multicolor Wavefront Reconstruction—A. A. Friesem and R. J. Fedorowicz. <u>6</u>, 529 (1967)

Recording Parameters of Spatially Modulated Coherent Wavefronts-A. A. Friesem, A. Kozma, and G. F. Adams. 6, 851 (1967)

Effects of Film Nonlinearities in Holography—A. A. Friesem and J. S. Zelenka. 6, 1755 (1967)

FRIESER, H.

Measurement of Granularity Using Photoconductive Cells-H. Frieser. 6, 1421(L) (1967)

FRISH, S.

The Development of Soviet Optics and Spectroscopy during the Past Fifty Years—S. Frish. 6, 1783 (1967)

FROST, Milton A., III

Anomaly Observed in Spectral Data Recorded on a Hypersensitized Film-Milton A. Frost, III, and Frederic A. Wierum, Jr. §, 1278(L) (1967)

FRY, Franklin H.

Optical Pumping of Generalized Laser Active Materials— Franklin H. Fry. <u>6</u>, 1960 (1967)

FRYER, R. E.

Computer Calibration of the Wavelength Drive of a Prism Spectrometer-R. E. Fryer. 6, 275 (1967)

FURDYNA, Jacek K.

Helicons, Magnetoplasma Edge, and Faraday Rotation in Solid State Plasmas at Microwave Frequencies—Jacek K. Furdyna. 6, 675 (1967)

FUSSELL, William B.

The New Tungsten-Filament Lamp Standards of Total Irradiance—Ralph Stair, William E. Schneider, and William B. Fussell. 6, 101 (1967)

Approximate Normal Emissivity in the Infrared at Elevated Temperatures of Single-Crystal and Polycrystalline Calcium Fluoride-W. Fussell and J. Geist. 6, 119 (1967) GABOR, D.

An Introduction to Coherent Optics and Holography. George W. Stroke-Book Review by D. Gabor. 6, 208(B) (1967)

GABRIEL, Cedric J.

Determination of the Optical Verdet Coefficient in Semiconductors and Insulators—Cedric J. Gabriel and Herbert Piller. §, 661 (1967)

GAGNÉ, Jean-Marie

Application de la spectroscopie optique de haute resolution à l'étude des moments quadrupolaires des isotopes pairs radioactifs—Jean-Marie Gagné. <u>6</u>, 1649 (1967)

GALBRAITH, H. J.

Computer Processing of Spectrograms for Absolute Intensities—A. Guttman, J. Golden, and H. J. Galbraith. 6, 1507 (1967)

GALLAGHER, C. C.

Electrode Processes in a High Current 20 nsec Spark— Heinz Fischer and C. C. Gallagher. <u>6</u>, 2176 (1967)

GALLARDO, M.

New Lines in a Pulsed N₂ Laser—O. Andrade, M. Gallardo, and K. Bockasten. 6, 2006(L) (1967)

GALLO, C. F.

Acoustical Resonances in Modulated Xenon and Krypton Compact Arc Lamps—C. F. Gallo and J. E. Courtney. 6, 939 (1967)

The Effect of Thallium Iodide on the Arc Temperature of Hg Discharges-C. F. Gallo. 6, 1563 (1967)

GAMBIRASIO, Giorgio

Measurement of Cell Thickness in Infrared Spectrophotometry-Giorgio Gambirasio. 6, 477 (1967)

GARDNER, Irving C.

The Early History of Optics at the National Bureau of Standards-Irving C. Gardner. 6, 1 (1967)

GARLICK, G. F. J.

International Conference on Luminescence, Budapest, 23-30 August 1966-G. F. J. Garlick. 6, 286(MR) (1967)

GARRETT, D. L.

An Echelle Spectrograph for Middle Ultraviolet Solar Spectroscopy from Rockets—R. Tousey, J. D. Purcell, and D. L. Garrett. 6, 365 (1967)

GAW, W

A Versatile Spectroradiometer and Its Applications—C. L. Sanders and W. Gaw. 6, 1639 (1967)

GEHRELS, Thomas

Ultraviolet Polarimetry Using High Altitude Balloons— Thomas Gehrels. 6, 231 (1967)

GEISER, R. D.

Machine Devices and Instrumentation. Nicholas P. Chironis

—Book Review by R. D. Geiser. 6, 1061(B) (1967)

GEIST. Jon

Approximate Normal Emissivity in the Infrared at Elevated Temperatures of Single-Crystal and Polycrystalline Calcium Fluoride-W. Fussell and J. Geist. 6, 119 (1967)

High Purity Powdered CsI as a High Reflectance Infrared Diffuser—Jon Geist, Gerhart J. Kneissl, and V. R. Weidner. 6, 1280(L) (1967)

GERASIMOV, F. M.

Use of Diffraction Gratings for Controlling a Ruling Engine -F. M. Gerasimov. 6, 1861 (1967)

GIBBS, W. E. K.

Time-Resolved Beam Structure of an Active Q-Switched Ruby Laser-W. E. K. Gibbs and R. E. Whitcher. <u>6</u>, 1957 (1967) GIDDINGS, Lorrain E., Jr.

A Computer Method for the Automatic Reduction of Spectroscopic Data—Earle F. Ditzel and Lorrain E. Giddings, Jr. 6, 2085 (1967)

GIGUÈRE, Paul A.

Infrared Instrumentation and Techniques. A. E. Martin-Book Review by Paul A. Giguère. 6, 780(B) (1967)

GILBERT, Gary D.

Improvement of Underwater Visibility by Reduction of Backscatter with a Circular Polarization Technique—Gary D. Gilbert and John C. Pernicka. 6, 741 (1967)

GILBY, A. C.

A Littrow-McCubbin High Resolution Infrared Spectrometer

-John Overend, A. C. Gilby, J. W. Russell, C. W. Brown,
J. Beutel, C. W. Bjork, and H. G. Paulat. 6, 457 (1967)

GILFRICH, J. V.

Quantitative Calibration of X-ray Response in the 5-keV to 1.3-MeV Region-C. M. Dozier, J. V. Gilfrich, and L. S. Birks. 6, 2136 (1967)

GILLESPIE, Donald

An Optical Circulator Using Quarter-Wave Plates-William Ribbens, David Stodolsky, and Donald Gillespie. 6, 581(L) (1967)

GILSON, V. A.

Fabry-Perot Fringe Enhancement-V. A. Gilson. 6, 1217 (1967)

GIRARD, F.

Fresnel Zone Plate Generation—J. Camus, F. Girard, and R. Clark. 6, 1433(L) (1967)

GOEBEL, David G.

Generalized Integrating-Sphere Theory—David G. Goebel. 6, 125 (1967)

GOETZ, Alexander F. H.

A Method for Obtaining Differential 8-13 μ Spectra of the Moon and Other Extended Objects—Alexander F. H. Goetz and James A. Westphal. 6, 1981 (1967)

GOETZE, G. W.

Tabulation of Published Data on Soviet Electron Devices Through June 1965. Charles P. Marsden-Book Review by G. W. Goetze. 6, 172(B) (1967)

GOLDEN, David Mark

Photochemistry. J. G. Calvert and J. N. Pitts, Jr. - Book Review by David Mark Golden. 6, 1076(B) (1967)

GOLDEN, J.

Computer Processing of Spectrograms for Absolute Intensities—A. Guttman, J. Golden, and H. J. Galbraith. <u>6</u>, 1507 (1967)

GOLDMAN, Aharon

Integrated Intensity of NO Fundamental—U. P. Oppenheim, Yair Aviv, and Aharon Goldman. 6, 1305 (1967)

GOODMAN, J. W.

Temporal Filtering Properties of Holograms-J. W. Goodman. 6, 857 (1967)

GRAY, E. L.

Reflection and Polarization Properties of Powder Materials
—H. H. Blau, Jr., E. L. Gray, and G. M. B. Bourioius.
6, 1899 (1967)

GRAY, P. R.

An Automatic Polarimeter for Space Applications—S. F. Pellicori and P. R. Gray. 6, 1121 (1967)

GREEN, S. E. S.

Atmospheric Scattering of the Solar Flux in the Middle Ultraviolet—R. T. Brinkmann, S. E. S. Green, and C. A. Barth. 6, 373 (1967)

GRIFFITH, R. C.

A Rotating Polarizer for Faraday Rotation Measurements—R. C. Griffith. 6, 772(L) (1967)

GROSS, Gordon E.

Luminescence: Supplement 1 to Optics and Spectroscopy. L. M. Matarrese—Book Review by Gordon E. Gross. 6, 1062(B) (1967)

GUERRA, Raymond

A Method for Finding White Light Fringes Useful in Interferometers—Raymond Guerra. 6, 170(L) (1967)

CIMILICH H E

Laser: Lichtverstärker und Oszillatoren. D. Röss-Book Review by H. E. Gumlich. §, 226(B) (1967)

GUNTER, William D., Jr.

Increased Ultraviolet Sensitivity in the Sodium Salicylate— Photomultiplier Combination—William D. Gunter, Jr., and Dean N. Jaynes. 6, 350(L) (1967)

GUSTAFSON, Harry A.

Zeeman Discharge Tube Frequency Monitor—Frederick Aronowitz, Harry A. Gustafson, and Joseph E. Killpatrick. 6, 695 (1967)

GUTTMAN, A.

Computer Processing of Spectrograms for Absolute Intensities—A. Guttman, J. Golden, and H. J. Galbraith. 6, 1507 (1967)

HAAK, F. A.

Electrooptic Constant of Cadmium Telluride—O. M. Stafsudd, F. A. Haak, and K. Radisavljević. §, 1276(L) (1967)

HAAS, W.

Temperature Dependence of the Refractive Index n_C in SbSI Through the Ferroelectric-Paraelectric Transition—R. Johannes and W. Haas. $\underline{6}$, 1059 (1967)

Linear Electrooptic Effect in Potassium Tantalate Niobate Crystals—W. Haas and R. Johannes. <u>6</u>, 2007(L) (1967)

HADZI, D.

14th Colloque Ampere—International Conference on Magnetic Resonance and Relaxation, Ljubljana, 5-10 September 1966—D. Hadzi. 6, 829(MR) (1967)

HAINES K. A.

Holography as a Tool in the Testing of Large Aperture Optics—B. P. Hildebrand, K. A. Haines, and R. Larkin. 6, 1267 (1967)

HALL, D. N. B.

Optical Effects of Thermal Structure in the Lower Atmosphere—C. E. Coulman and D. N. B. Hall. <u>6</u>, 497 (1967)
The Measurement of Optical Seeing by a Resistance Analog
—D. N. B. Hall. <u>6</u>, 1992 (1967)

HALL, James T.

Attenuation of Millimeter Wavelength Radiation by Gaseous Water-James T. Hall. 6, 1391 (1967)

HAMMOND, Harry K., III

Manual on Recommended Practices in Spectrophotometry. Sponsored by ASTM Committee E-13 on Absorption Spectroscopy—Book Review by Harry K. Hammond, III. 6, 173(B) (1967)

HAMPSON, John

A Discussion on Some Aspects of the Stratosphere, Mesosphere, and Lower Thermosphere. Proc. Royal Society of London-Book Review by John Hampson. £, 864(B) (1967)

Les problèmes météorologique de la stratosphère et de la mésosphère. M. Nicolet—Book Review by John Hampson. 6. 864(B) (1967)

HANLON, J.

Narrowband Optical Heterodyne Detection-J. Hanlon and S. F. Jacobs. 6, 577(L) (1967)

HANSEN, W. P.

A Worst-Case Analysis of Continuous Wave He-Ne Laser Hazards to the Eye-W. P. Hansen, L. Feigen, and S. Fine. 6, 1973 (1967)

HARRIS, Franklin S., Jr.

Encyclopedic Dictionary of Physics. Vol. 9. Multilingual Glossary. Editor-in-Chief, J. Thewlis; Glossary Editor and Associate Editor, A. R. Meetham; Associate Editor, R. C. Glass-Book Review by Franklin S. Harris, Jr. 6, 1169(B) (1967)

HARRIS, J. L.

Light Pipe Holography—H. J. Caulfield and J. L. Harris. 6, 1272(L) (1967)

HARRISON, D. C.

Fiber Optics Oximeter-Densitometer for Cardiovascular Studies—N. S. Kapany, D. C. Harrison, N. Silbertrust, R. P. Drake, T. McLaughlin, and H. A. Miller. 6, 595 (1967)

HARRISON, W. J.

Out-of-Focus Images; Some Properties, Uses, and a Geometrical Explanation-W. J. Harrison. 6, 1559 (1967)

HARSHBARGER, F.

Measurement of the Atmospheric Spectral Radiance at 35 km in the Near Ultraviolet—M. Dorian and F. Harshbarger. <u>6</u>, 1487 (1967)

HASS, G.

Calculated Reflectance of Aluminum-Overcoated Iridium in the Vacuum Ultraviolet from 500 Å to 2000 Å-G. Hass and W. R. Hunter. £, 2097 (1967)

HASS, Marvin

Lattice Infrared Absorption and Raman Scattering in Finite Crystals—Marvin Hass and Herbert B. Rosenstock. <u>6</u>, 2079 (1967)

HATHAWAY, Charles E.

Infrared Absorption by Overlapping Bands of Atmospheric Gases—Gary M. Hoover, Charles E. Hathaway, and Dudley Williams. <u>6</u>, 481 (1967)

Further Studies of Overlapping Absorption Bands—Lloyd D. Tubbs, C. E. Hathaway, and Dudley Williams. 6, 1422(L) (1967)

HATTENBURG, Albert T.

Spectral Radiance of a Low Current Graphite Arc-Albert T. Hattenburg. 6, 95 (1967)

HAUPT, Wolfgang

Irregular Surface Refraction in the Ultraviolet-Wolfgang Haupt. 6, 1576(L) (1967)

HEINTZE, L. R.

A Multiple-Beam Interferometer for Use with Spherical Wavefronts-L. R. Heintze, H. D. Polster, and J. Vrabel. §, 1924 (1967)

HELLER, A.

The Kerr Constant of Selenium Oxychloride-C. F. Buhrer, A. Heller, and A. Lempicki. 6, 1141(L) (1967)

HEMINGWAY, D. J.

Effective Refractive Indices of Metal-Dielectric Interference Filters—D. J. Hemingway and P. H. Lissberger. <u>6</u>, 471 (1967)

HENVIS, B. W.

A Bibliography of Magnetooptics of Solids—E. D. Palik and B. W. Henvis. <u>6</u>, 603 (1967)

A CdS Soleil Compensator for the Near Infrared—E. D. Palik and B. W. Henvis. 6, 2198(L) (1967)

HERBER, Rolfe H.

Mössbauer Effect Methodology, Volume 2. Edited by Irwin J. Gruverman—Book Review by Rolfe H. Herber. §, 1405(B) HERCHER, Michael

An Analysis of Saturable Absorbers—Michael Hercher. 6, 947 (1967)

HERZBERG, G.

Apparatus for the Observation of Optical Molecular Spectra
-A. E. Douglas and G. Herzberg. 6, 1593 (1967)

HERZBERG, Luise

The Solar Spectrum 2935 A to 8770 A. Second Revision of J. Houtgast—Book Review by Luise Herzberg. 6, 1657(B) (1967)

HICKEY, J. R.

An Absolute Calibration Source for Laboratory and Satellite Infrared Spectrometers—A. R. Karoli, J. R. Hickey, and R. E. Nelson. 6, 1183 (1967)

HILDEBRAND, B. P.

Holography as a Tool in the Testing of Large Aperture Optics—B. P. Hildebrand, K. A. Haines, and R. Larkin. 6, 1267 (1967)

HILLEARY, D. T.

Remote Sensing of Surface and Cloud Temperatures Using the 899-cm⁻¹ Interval—F. Saiedy and D. T. Hilleary. 6, 911 (1967)

HILTON, A. Ray

The Thermal Change in the Nondispersive Infrared Refractive Index of Optical Materials—A. Ray Hilton and Charlie E. Jones. 6, 1513 (1967)

IV Symposium on Vitreous Chalcogenide Semiconductors, Leningrad, 23-27 May 1967—A. Ray Hilton. 6, 2021(MR) (1967)

HIRSCHFELD, Tomas

Procedures for Attenuated Total Reflection Study of Extremely Small Samples—Tomas Hirschfeld. 6, 715 (1967)

HOEKSTRA, R.

A Rapid Precision Wavelength Measuring Apparatus— R. Hoekstra. <u>6</u>, 807 (1967)

HOLLAND, Alfred C.

Analytical and Experimental Investigation of Light Scattering from Polydispersions of Mie Particles—Alfred C. Holland and James Stark Draper. 6, 511 (1967)

HOLMES, D. A.

On the Calculation of Thin Film Refractive Index and Thickness by Ellipsometry-D. A. Holmes. 6, 168(L) (1967)

HOMENTOWSKI, Eugene

Direct Nondestructive Pumping of Ruby Lasers by Chemical Means—Chester L. Smith, Eugene Homentowski, and Charles Stokes. 6, 1130(L) (1967)

HOOVER, Gary M.

Infrared Absorption by Overlapping Bands of Atmospheric Gases—Gary M. Hoover, Charles E. Hathaway, and Dudley Williams. 6, 481 (1967)

HOPFIELD, Robert F.

A Comment on the Scattering of Coherent Light-Robert F. Hopfield. 6, 170(L) (1967)

HOPKINS, H. H.

Progress in Optics, Volume V. E. Wolf, Ed.—Book Review by H. H. Hopkins. 6, 781(B) (1967)

HOPKINS, R. E.

A System of Optical Design. Arthur Cox—Book Review by R. E. Hopkins. 6, 487(B) (1967)

Design of Double Gauss Systems Using Aspherics-T. R. Sloan and R. E. Hopkins. 6, 1911 (1967)

HORMAN, Melvin H.

Zone Plate Theory Based on Holography-Melvin H. Horman and Henry H. M. Chau. 6, 317 (1967)

Reply to Comments on Zone Plate Theory Based on Holography—Melvin H. Horman. 6, 1415(L) (1967)

Efficiencies of Zone Plates and Phase Zone Plates—Melvin H. Horman. 6, 2011(L) (1967)

HORVATH, H.

The Refractive Index of Freon 12—H. Horvath. 6, 1140(L) (1967)

HOUSTON, J. B., Jr.

A Laser Unequal Path Interferometer for the Optical Shop— J. B. Houston, Jr., C. J. Buccini, and P. K. O'Neill. <u>6</u>, 1237 (1967)

HOVIS, W. A., Jr.

Filter Wedge Spectrometer for Field Use-W. A. Hovis, Jr., W. A. Kley, and M. G. Strange. 6, 1057 (1967)

Spectral Measurements from 1.6 μ to 5.4 μ of Natural Surfaces and Clouds—W. A. Hovis, Jr., and M. Tobin. 6, 1399 (1967)

HOWARD, John N.

From the Editor-John N. Howard. 6, 106, 219, 435, 638, 792, 1009, 1170, 1331, 1468, 1592, 2000, 2103, (1967)

New Foundations of Quantum Mechanics. Alfred Landé— Book Review by John N. Howard. 6, 171(B) (1967)

Experimental Researches in Electricity. Michael Faraday
-Book Review by John Howard. 6, 779(B) (1967)

The Feynman Lectures on Physics. III: Quantum Mechanics. R. P. Feynman, R. B. Leighton, and M. Sands—Book Review by John N. Howard. 6, 891(B) (1967)

Laseri. I. Cucurezeanu—Book Review by John N. Howard. 6, 891(B) (1967)

Visible and Infrared Transmission of the Atmosphere. Vladimir E. Zuev-Book Review by John N. Howard. 6, 2020(B) (1967)

Handbook of Military Infrared Technology. William L. Wolfe, Ed.—Book Review by John N. Howard. 6, 2200 (1967)

HOWELL, H. B.

Some Aspects of the Optical Estimation of Microstructure in Fog and Cloud—S. Twomey and H. B. Howell. <u>6</u>, 2125 (1967)

HOWES, Walton L.

Comments on Astigmatism in the Mach-Sehnder Interferometer-Walton L. Howes and D. R. Buchele. 6, 1583(L) (1967)

HUANG, J. W.

Spectrometer System for Studying Absorption from Excited Metastable States of Ions in Crystals—H. W. Moos, C. B. Opal, and J. W. Huang. 6, 877 (1967)

HUGHES, J. L.

The Potential of Present Day Lasers as Scientific Probes for Investigating the Structure of Matter, Using an Exponential Amplifier—J. L. Hughes. 6, 1411 (1967)

HULTQUIST, Paul F.

Image Velocity Sensing with Moving Reticle Scanners—Paul F. Hultquist and O. E. Bartoe, Jr. 6, 1387 (1967)

HUNT, Graham R.

Enhancement of Fine Detail in the Presence of Large Radiance Difference—Graham R. Hunt. 6, 505 (1967)

An Earth-Based, Infrared Lunar Mapper for Thermal and Composition Studies—John D. Rehnberg, John R. Yoder, and Graham H. Hunt. 6, 1111 (1967)

A Bidirectional Reflection Accessory for Spectroscopic Measurement—Graham R. Hunt and Howard P. Ross. 6, 1687 (1967) HUNT, Robert H.

A Four-Pass High Resolution Spectrometer for the Near Infrared—Robert H. Hunt, Charles W. Robertson, and Earle K. Plyler. 6, 1295 (1967)

HUNTEN, D. M.

Optical Upper Atmosphere Investigations at the University of Saskatchewan-D. M. Hunten, H. N. Rundle, G. G. Shepherd, and A. Vallance Jones. 6, 1609 (1967)

HUNTER, W. R.

Detectors for the Extreme Ultraviolet. I: Photomultipliers Used in the dc Output Current Mode-D. J. Michels and W. R. Hunter. 6, 385 (1967)

Calculated Reflectance of Aluminum-Overcoated Iridium in the Vacuum Ultraviolet from 500 Å to 2000 Å-G. Hass and W. R. Hunter. 6, 2097 (1967)

On the Cause of Errors in Reflectance vs. Angle of Incidence Measurements and the Design of Reflectometers to Eliminate the Errors—W. R. Hunter. 6, 2140 (1967)

HYDE, W. Lewis

Expoptics-W. Lewis Hyde. 6, 1294 (1967)

HYDE, W. Thomas

Diffraction Patterns of Alphanumeric Characters—John F. Bryant, W. Thomas Hyde, and Howard E. Morrow. 6, 170(L) (1967)

HYNEK, J. Allen

Optical Scintillation: a Survey of the Literature. J. R. Meyer-Arendt and C. B. Emmanuel—Book Review by J. Allen Hynek. 6, 872(B) (1967)

ILIFF, R. L.

A Programmed Multipulse Range Measurement System— S. Ackerman, T. S. Morrison, and R. L. Iliff. 6, 353(L) (1967)

IOGANSEN, L. V.

On the Theory of the Frustrated Total Reflection Filter— L. V. Iogansen. 6, 2001(L) (1967)

ISENOR, N. R.

Object-Image Relationships in Scattered Laser Light-N. R. Isenor. §, 163(L) (1967)

JACKSON, John K.

Spectral Irradiances as Determined Through the Use of Prism and Filter Spectroradiometric Techniques—William E. Schneider, Ralph Stair, and John K. Jackson. <u>6</u>, 1479 (1967)

JACKSON, Philip L.

Correlation Function Spatial Filtering with Incoherent Light
-Philip L. Jackson. 6, 1272(L) (1967)

JACOBS, S. F.

Narrowband Optical Heterodyne Detection—J. Hanlon and S. F. Jacobs. 6, 577(L) (1967)

JACOBSON, Jacob L.

Polishing of Cesium Halide Windows—Jacob L. Jacobson and Eugene R. Nixon. <u>6</u>, 1583(L) (1967)

JACOBSSON, Roland

Physics of Thin Films, Vol. 3. Edited by G. Hass and R. E. Thun. Book Review by Roland Jacobsson. <u>6</u>, 2175(B) (1967)

JAHODA, F. C.

Fractional-Fringe Holographic Plasma Interferometry— F. C. Jahoda, R. A. Jeffries, and G. A. Sawyer. <u>6</u>, 1407 (1967)

JAYNES, Dean N.

Increased Ultraviolet Sensitivity in the Sodium Salicylate— Photomultiplier Combination—William D. Gunter, Jr., and Dean N. Jaynes. 6, 350(L) (1967) JEFFRIES, R. A.

Fractional-Fringe Holographic Plasma Interferometry— F. C. Jahoda, R. A. Jeffries, and G. A. Sawyer. §, 1407 (1967)

JOHANNES, R.

Temperature Dependence of the Refractive Index n_C in SbSI Through the Ferroelectric-Paraelectric Transition—R. Johannes and W. Haas. $\underline{6}$, 1059 (1967)

Linear Electrooptic Effect in Potassium Tantalate Niobate Crystals-W. Haas and R. Johannes. 6, 2007(L) (1967)

JOHNSON, John R.

A Method for Producing Precisely Confocal Resonators for Scanning Interferometers—John R. Johnson. 6, 1930 (1967)

JOHNSON, R. G.

Comparison of an Ionization Chamber and a Thermopile as Absolute Detectors in the Extreme Ultraviolet—L. R. Canfield, R. G. Johnson, K. Codling, and R. P. Madden. <u>6</u>, 1886 (1967)

JOHNSTON, David R.

Attenuation by Artificial Fogs in the Visible, Near Infrared, and Far Infrared—David R. Johnston and Darrell E. Burch. 6, 1497 (1967)

JOHNSTON, R. G.

Reflective Scattering from Substrates and Evaporated Films in the Far Ultraviolet—R. G. Johnston, L. R. Canfield, and R. P. Madden. 6, 719 (1967)

JOHNSTON, W. H.

Torque Requirements for a Rotating Optical Chopper-D. L. Fain and W. H. Johnston. 6, 778(L) (1967)

JONES, A. Vallance

Optical Upper Atmosphere Investigations at the University of Saskatchewan-D. M. Hunten, H. N. Rundle, G. G. Shepherd, and A. Vallance Jones. 6, 1609 (1967)

JONES, Charlie E.

The Thermal Change in the Nondispersive Infrared Refractive Index of Optical Materials—A. Ray Hilton and Charlie E. Jones. <u>6</u>, 1513 (1967)

JONES, D. G. C.

Vibrational Energy Level Population in Optically Pumped AgCl Vapor—L. Allen and D. G. C. Jones. 6, 1545 (1967)

JONES, L. H.

Temperature Compensated Gas Laser—D. S. Smith, L. H. Jones, and K. M. Baird. 6, 2195(L) (1967)

JONES, W. B., Jr.

Measurement of the Laser Frequency Control Characteristics of Piezoelectric Transducers—W. B. Jones, Jr., and J. T. Ruscio. 6, 1005 (1967)

JUDD, Deane B.

Physiological Optics at the National Bureau of Standards— Deane B. Judd. 6, 13 (1967)

Hermann von Helmholtz. Leo Koenigsberger-Book review by Deane B. Judd. 6, 173(B) (1967)

KAHAN, Alfred

Determination of Optical Constants—Alfred Kahan. 6, 587(L) (1967)

KAHN, Walter K.

Dihedral Optical Resonators and Prism Beam Waveguides—Walter K. Kahn. <u>6</u>, 865 (1967)

KAMINOW, I. P.

Performance of LiTaO₃ and LiNbO₃ Light Modulators at 4 GHz—I. P. Kaminow and W. M. Sharpless. <u>6</u>, 351(L) (1967)

Clamped Electrooptic Coefficients of KDP and Quartz-R. D. Rosner, E. H. Turner, and I. P. Kaminow. 6, 778(L) (1967)

KANE, John W., Jr.

Radiant Properties of Strong Shock Waves in Argon—William H. Taylor II, and John W. Kane, Jr. <u>6</u>, 1493 (1967)

KAPANY, N. S.

Fiber Optics Oximeter-Densitometer for Cardiovascular Studies-N. S. Kapany, D. C. Harrison, N. Silbertrust, R. P. Drake, T. McLaughlin, and H. A. Miller. <u>6</u>, 565 (1967)

KAPLAN, R.

Magnetooptical Studies of Solids Using Fourier Transform Spectroscopy—R. Kaplan. <u>6</u>, 685 (1967)

KARLE, I. L.

The Crystal Structure of Auramine Perchlorate: Correlation of the Results with Specular Reflection Spectroscopy—A. V. Fratini, I. L. Karle, and J. Karle. 6, 2091 (1967)

KARLE, J.

The Crystal Structure of Auramine Perchlorate: Correlation of the Results with Specular Reflection Spectroscopy—A. V. Fratini, I. L. Karle, and J. Karle. 6, 2091 (1967)

Anomalous Scatterers of X-ray Fraction and the Use of Several Wavelengths—J. Karle. 6, 2132 (1967)

KAROLI, A. R.

An Absolute Calibration Source for Laboratory and Satellite Infrared Spectrometers—A. R. Karoli, J. R. Hickey, and R. E. Nelson. 6, 1183 (1967)

KASHIMA, Takeo

A 5-m Integrating Sphere-Mamoru Nonaka, Takeo Kashima, and Yataro Kondo. 6, 757 (1967)

KASUYA, Takahiro

Measurements on the Molecular Nitrogen Pulsed Laser— Takahiro Kasuya and David R. Lide, Jr. 6, 69 (1967)

KATTAWAR, George W.

Electromagnetic Scattering from Absorbing Spheres—George W. Kattawar and Gilbert N. Plass. 6, 1377 (1967)

Resonance Scattering from Absorbing Spheres—George W. Kattawar and Gilbert N. Plass. 6, 1549 (1967)

KATTI, P. K.

Resolving Power of the Fabry-Perot Interferometer and the Reflection Echelon Used for Visual Observations of Absorption Spectra—P. K. Katti and K. Singh. <u>6</u>, 1134(L) (1967)

KAUFMAN, Victor

Newly Measured and Calculated Wavelengths in the Vacuum Ultraviolet Spectrum of Neutral Nitrogen—Victor Kaufman and John F. Ward. 6, 43 (1967)

KAY, R. B

Absorption Spectra Apparatus Using Optical Correlation for the Detection of Trace Amounts of SO₂-R. B. Kay. <u>6</u>, 776(L) (1967)

KEAY. D

Application of the Concept of Effective Refractive Index to the Measurement of Thickness Distribution of Dielectric Films—D. Keay and P. H. Lissberger. 6, 727 (1967)

KELLINGTON, Charles M.

Measurement of the Room Temperature R₁ Line Width of Forty-Two Rubies—Robert A. Benedict, James F. Nester, and Charles M. Kellington. 6, 429 (1967)

KERN, Sanford

Symposium on Optical Technology, Bendix Research Laboratories, Southfield, Michigan, 20 December 1966—R. K. Mueller and Sanford Kern. 6, 1032(MR) (1967)

KERR, J. Richard

Photomixing with Multimode Lasers—J. Richard Kerr. 6, 2006(L) (1967)

Conference on Laser Engineering and Applications, Washington, D.C., 6-8 June 1967—J. Richard Kerr. <u>6</u>, 2024(MR)

KHANNA, Raj. K.

5th Spring Raman Institute, 8-12 May 1967, University of Maryland-Raj. K. Khanna. 6, 2022(MR) (1967)

KIDGER, M. J.

The Design of Double Gauss System Using Digital Computers—M. J. Kidger and C. G. Wynne. §, 553 (1967)

KIESS, Edward M.

Beat-Frequency Interferometer with Moving Mirror— Edward M. Kiess. §, 160(L) (1967)

KILLPATRICK, Joseph E.

Zeeman Discharge Tube Frequency Monitor—Frederick Aronowitz, Harry A. Gustafson, and Joseph E. Killpatrick. 6, 695 (1967)

KING, Gerald W.

Molecular Spectroscopy: Supplement 2 to Optics and Spectroscopy. C. W. Garland—Book Review by Gerald W. King. 6, 1067(B) (1967)

KING, Marvin

Real-Time Electrooptical Signal Processors with Coherent Detection—Marvin King, William R. Bennett, Louis B. Lambert, and Moses Arm. 6, 1367 (1967)

KINGSLAKE, R.

Generation of Optical Surfaces. K. J. Kumanin, Ed., translated by D. Finch—Book Review by R. Kingslake. <u>6</u>, 2018(B) (1967)

KINNEY, JoAnn S.

Degree of Applicability and Consequences of Inappropriate Use of Units of Light—JoAnn S. Kinney. 6, 1473 (1967)

KINZLY. Robert E.

A New Interferometer Capable of Measuring Small Optical Path Differences—Robert E. Kinzly. <u>6</u>, 137 (1967)

KISELBACH, R.

An Automatic Recording Magnetooptical Rotation Spectropolarimeter—J. G. Forsythe, R. Kieselbach, and V. E. Shashoua. 6, 699 (1967)

KISELEVA, M. S.

Determination of Moisture in the Atmosphere from Absorption of Solar Radiation—B. S. Neporent, M. S. Kiseleva, A. G. Makogonenko, and V. I. Shlyakov. 6, 1845 (1967)

KLEY, W. A.

Filter Wedge Spectrometer for Field Use-W. A. Hovis, Jr., W. A. Kley, and M. G. Strange. 6, 1057 (1967)

KNEISSL, Gerhart J.

High Purity Powdered CsI as a High Reflectance Infrared Diffuser—Jon Geist, Gerhart J. Kneissl, and V. R. Weidner. 6, 1280(L) (1967)

KNESTRICK, G. L.

Atmospheric Propagation of Laser and Nonlaser Light-G. L. Knestrick and J. A. Curcio. 6, 1420(L) (1967)

Relative Spectral Attenuation Coefficients of Water-L. F. Drummeter, Jr., and G. L. Knestrick. <u>6</u>, 2101 (1967)

Measurements of Spectral Radiance of the Horizon Sky-G. L. Knestrick and J. A. Curcio. 6, 2105 (1967)

KNEUBÜHL, F. K.

Interferometry of Resonator Modes in Submillimeter Wave Lasers-P. Schwaller, H. Steffen, J. F. Moser, and F. K. Kneubühl. §, 827 (1967)

KNITTL, Zdeněk

A Rational Function Approach to Multilayer Synthesis— Zdeněk Knittl. 6, 331 (1967)

KOLB, A. C

Theory of the Pulsed Molecular Nitrogen Laser-A. W. Ali, A. C. Kolb, and A. D. Anderson. 6, 2115 (1967)

KONDO, Yataro

A 5-m Integrating Sphere—Mamoru Nonaka, Takeo Kashima, and Yataro Kondo. 6, 757 (1967)

KONDRATIEV, K. Ya.

Direct Solar Radiation up to 30 km and Stratification of Attentuation Components in the Stratosphere—K. Ya. Kondratiev, G. A. Nicolsky, I. Ya. Bandinov, and S. D. Andreev. 6, 197 (1967)

KOSTLOWSKI, Henry J.

Measurement of Optical Radiations. G. Bauer-Book Review by Henry J. Kostkowski. 6, 176(B) (1967)

KOZMA. A

Recording Parameters of Spatially Modulated Coherent Wavefronts—A. A. Friesem, A. Kozma, and G. F. Adams. 6, 851 (1967)

KRAUSE, Gerhard

A New Type of Astronomical Telescope with an Extra Large Aperture—Gerhard Krause. <u>6</u>, 976(L) (1967)

KRAUSE, L.

Radiofrequency Source of Potassium Resonance Radiation for Use in Kilogauss Magnetic Fields—W. Berdowski, T. Shiner, and L. Krause. 6, 1683 (1967)

KREIDL, Norbert J.

Glas: Natur, Struktur und Eigenschaften. Horst Scholze-Book Review by Norbert J. Kreidl. 6, 208(B) (1967)

KROKHIN, O. N.

Laser Application for the Production and Diagnostics of Pulsed Plasma—N. G. Basov, O. N. Krokhin, and G. V. Sklizkov. <u>6</u>, 1814 (1967)

KRONKE, Richard H.

Earth Radiance and Reflectivities Relative to the Response of a Silicon Detector—Richard H. Kronke and Frederick W. Raymond. 6, 2110 (1967)

KRUEGLE, Herman A.

A Rapid-Scan Spectrometer That Sweeps Corner Mirrors Through the Spectrum-Stanley A. Dolin, Herman A. Kruegle, and Gunter J. Penzias. 6, 267 (1967)

LABS. D.

The Synchrotron Radiation of the 6-GeV DESY Machine as a Fundamental Radiometric Standard—D. Lemke and D. Labs. 6, 1043 (1967)

LAFLAMME, A. K.

Improvements to a Balloon-Borne Sun-Seeker—A. K. Laflamme and L. Paquet. 6, 235 (1967)

Frictionless Bearing for Balloon-K. R. Park, L. Paquet, and A. K. Laflamme. 6, 346(L) (1967)

LAMBERT, Louis B.

Real-Time Electrooptical Signal Processors with Coherent Detection—Marvin King, William R. Bennett, Louis B. Lambert, and Moses Arm. 6, 1367 (1967)

LANDON, D. O.

Comments on a Double Grating Monochromator with No Tracking Error by H. I. Mandelberg-D. O. Landon. 6, 346(L) (1967)

LANDRY, M. J.

The Effect of Two Hologram-Copying Parameters on the Quality of Copies—M. J. Landry. 6, 1947 (1967)

LANG, K.

Optical Superheterodyne Receiver—R. F. Lucy, K. Lang, C. J. Peters, and K. Duval. <u>6</u>, 1333 (1967)

Continuous Wave Laser Ground-to-Space-to-Ground Laser Experiment-K. Lang and R. Lucy. 6, 1579(L) (1967)

LANGENBECK, P. H.

Multipass Twyman-Green Interferometer—P. Langenbeck. 6, 1425(L) (1967)

Lloyd Interferometer Applied to Flatness Testing-P. H. Langenbeck. 6, 1707 (1967)

LANGER, R. M.

Handbook of Laplace Transformations. Floyd E. Nixon-Book Review by R. M. Langer. 6, 860(B) (1967)

LARAMORE, George

Magnetooptical Experiments on Broad Absorption Bands in Solids—Frederick C. Brown and George Laramore. 6, 669 (1967)

LARKIN, R.

Holography as a Tool in the Testing of Large Aperture Optics—B. P. Hildebrand, K. A. Haines, and R. Larkin. 6, 1267 (1967)

LARMORE, Lewis

The Theory of the Photographic Process. C. E. K. Mees. Edited by T. H. James-Book Review by Lewis Larmore. 6, 917(B) (1967)

LARSON, Harold P.

A Least-Squares Deconvolution Technique for the Photoelectric Fabry-Perot Spectrometer—Harold P. Larson and Kenneth L. Andrew. §, 1701 (1967)

LAURES, Pierre

Geometrical Approach to Gaussian Beam Propagation— Pierre Laures. 6, 747 (1967)

LaVILLA, Robert E.

Molecular Emission Spectra in the Soft X-Ray Region— Richard D. Deslattes and Robert E. LaVilla. 6, 39 (1967) Optical Constants of Germanium—R. E. LaVilla and H. Mendlowitz. 6, 61 (1967)

LAX, B.

Interband Magnetooptical Studies of Semiconductors and Semimetals—B. Lax and J. G. Mavroides. <u>6</u>, 647 (1967)

LAZAREV D N

Ultraviolet Installations of Beneficial Action—N. M. Dantsig, D. N. Lazarev, and M. V. Sokolov. 6, 1872 (1967)

LEDFORD, A. E., Jr.

A Vacuum Ultraviolet Flash Photolysis Apparatus—W. Braun, Arnold M. Bass, and A. E. Ledford, Jr. <u>6</u>, 47 (1967)

LEMKE, D.

The Synchrotron Radiation of the 6-GeV DESY Machine as a Fundamental Radiometric Standard-D. Lemke and D. Labs. 6, 1043 (1967)

LEMPICKI, A.

The Kerr Constant of Selenium Oxychloride—C. F. Buhrer, A. Heller, and A. Lempicki. 6, 1141(L) (1967)

LENN. Peter D.

Plasma Diagnostics by Spectroscopic Methods—David Robinson and Peter D. Lenn. 6, 983 (1967)

LERMAN, Steven

Diffraction Images of Truncated, One-Dimensional Periodic Targets—Richard Barakat and Steven Lerman. <u>6</u>, 545 (1967)

LEVI, Leo

A Screenless Integrating Sphere—Leo Levi. <u>6</u>, 1138(L) (1967) LEVIALDI, S.

Self Modulating, Derivative Optical Spectroscopy. Part II: Experimental—G. Bonfiglioli, P. Brovetto, G. Busca, S. Levialdi, G. Palmieri and E. Wanke. 6, 447 (1967)

LEVY, Marilyn

SPSE 1967 Conference on Photographic Science and Engineering, Chicago, 15-19 May 1967, Session X—Silver Halide Chemistry—Marilyn Levy. 6, 1298(MR) (1967)

LIBERMAN, Irving

A High Resolution Rapid-Scanning Spectrometer—Irving Liberman, Charles H. Church, and Juris A. Asars. <u>6</u>, 279 (1967) The Spherical Reflector for Use in the Optical Pumping of Lasers-C. H. Church and I. Liberman. 6, 1966 (1967)

LIDDELL, Heather M.

Instrumental Optics and Optical Design: a Meeting of the Optical Group of the Institute of Physics and the Physical Society, Chelsea College of Science and Technology, 19-21 September 1966—Heather M. Liddell. 6, 322(MR) (1967)

LIDE, David R., Jr.

Measurements on the Molecular Nitrogen Pulsed Laser— Takahiro Kasuya and David R. Lide, Jr. 6, 69 (1967)

Infrared Physics. J. T. Houghton and S. D. Smith-Book Review by David R. Lide, Jr. 6, 780(B) (1967)

LIN. L. H.

Experimental Techniques in Making Multicolor White Light Reconstructed Holograms—L. H. Lin and C. V. LoBianco. 6, 1255 (1967)

Increase of Hologram Image Separation by Total Reflection —L. H. Lin. 6, 2004(L) (1967)

LINDER, Solomon L.

Optimization of Narrow Optical Spectral Filters for Nonparallel Monochromatic Radiation—Solomon L. Linder. 6, 1201 (1967)

LINFOOT, E. H.

Théorie et calcul des figures de diffraction de révolution. A. Boivin-Book Review by E. H. Linfoot. <u>6</u>, 172(B) (1967)

LISSBERGER P H.

Effective Refractive Indices of Metal-Dielectric Interference Filters—D. J. Hemingway and P. H. Lissberger. <u>6</u>, 471 (1967)

Application of the Concept of Effective Refractive Index to the Measurement of Thickness Distribution of Dielectric Films-D. Keay and P. H. Lissberger. <u>6</u>, 727 (1967)

LIU, I. D. A Time-Resolving Spectrograph for Free-Flight Ballistic Range Application—I. D. Liu. <u>6</u>, 1195 (1967)

LOBIANCO, C. V.

Experimental Techniques in Making Multicolor White Light Reconstructed Holograms—L. H. Lin and C. V. LoBianco. 6, 1255 (1967)

LOEWEN, E. G.

Dimensional Metrology Subject—Classified with Abstracts Through 1964. Compiled by I. H. Fullmer—Book Review by E. G. Loewen. 6, 1207(B) (1967)

LOHMANN, Adolf

A Lateral Wavefront Shearing Interferometer with Variable Shear—Adolf Lohmann and Olof Bryngdahl. <u>6</u>, 1934 (1967)

LOHMANN, A. W.

A Computer Generated Spatial Filter, Applied to Code Translation—A. W. Lohmann, D. P. Paris, and H. W. Werlich. 6, 1139(L) (1967)

Variable Fresnel Zone Pattern—A. W. Lohmann and D. P. Paris. 6, 1567 (1967)

Binary Fraunhofer Holograms, Generated by Computer— A. W. Lohmann and D. P. Paris. <u>6</u>, 1739 (1967)

Signal Detection by Correlation of Fresnel Diffraction Patterns-M. De and A. W. Lohmann. 6, 2171 (1967)

LOVE, John A., III

Analysis of Translucent and Opaque Photocathodes—John R. Sizelove and John A. Love, III. <u>6</u>, 356(L) (1967)

Analysis of a Multiple Reflective Translucent Photocathode— John R. Sizelove and John A. Love, III. <u>6</u>, 443 (1967)

Narrow Spectral Response Schottky Photodiodes—John R. Sizelove and John A. Love, III. <u>6</u>, 1777 (1967)

LOVELL, D. J.

Atmospheric Reentry. John J. Martin-Book Review by D. J. Lovell. 6, 174(B) (1967)

Optical Peregrinations in The Netherlands—D. J. Lovell. 6, 785 (1967)

Optical Frontiers Symposium, Ann Arbor, 14 January 1967— D. J. Lovell. <u>6</u>, 850(MR) (1967)

LOVELL, W. S.

Laser Harmonics Useful for Frequency Translation—W. S. Lovell, M. M. Anderson, and F. E. Seiller. 6, 1430(L) (1967)

LOW, M. J. D.

Measurement of the Infrared Spectral Reflection of Some Common Minerals and Rocks Using Multiple-Scan Interferometry—M. J. D. Low. 6, 1503 (1967)

LOWENTHAL, Dennis D.

A Photographic Recording Medium for 10.6-μ Laser Radiation
—John F. Forkner and Dennis D. Lowenthal. 6, 1419(L)
(1967)

LUCY, R. F.

Optical Superheterodyne Receiver—R. F. Lucy, K. Lang, C. J. Peters, and K. Duval. <u>6</u>, 1333 (1967)

Continuous Wave Laser Ground-to-Space-to-Ground Laser Experiment-K. Lang and R. Lucy. 6, 1579(L) (1967)

LUNN, G. H.

First International Congress on Photography and Cinematography in Industry and Technology, 6-8 October 1966, Cologne-G. H. Lunn. 6, 590(MR) (1967)

LYNCH, Robert

Synchronized High Speed Scanning Infrared Spectrometer— John C. Camm, Raymond L. Taylor, and Robert Lynch. <u>6</u>, 885 (1967)

MADDEN, R. P.

Instrumental Aspects of Synchrotron XUV Spectroscopy— R. P. Madden, D. L. Ederer, and K. Codling. 6, 31 (1967)

Reflective Scattering from Substrates and Evaporated Films in the Far Ultraviolet—R. G. Johnston, L. R. Canfield, and R. P. Madden. <u>6</u>, 719 (1967)

Comparison of an Ionization Chamber and a Thermopile as Absolute Detectors in the Extreme Ultraviolet—L. R. Canfield, R. G. Johnson, K. Codling, and R. P. Madden. <u>6</u>, 1886 (1967)

MAKAS, Albert S.

A Practical Design of a Simple Retardance Meter—Albert S. Makas. 6, 1773 (1967)

MAKOGONENKO, A. G.

Determination of Moisture in the Atmosphere from Absorption of Solar Radiation—B. S. Neporent, M. S. Kiseleva, A. G. Makogonenko, and V. I. Shlyakov. 6, 1845 (1967)

MALKMUS, W.

Criteria for Accuracy of Measurement of Line Intensities and Mean Absorption Coefficients—W. Malkmus. £, 349(L) (1967)

MALLICK, S.

Improvement of the Degree of Spatial Coherence in a Michelson Interferometer—M. Françon and S. Mallick. 6, 873 (1967)

Degree of Coherence in the Image of a Quasi-Monochromatic Source-S. Mallick. 6, 1403 (1967)

MANDELBERG, Hirsch I.

Author's Reply to Comments by D. O. Landon-Hirsch I. Mandelberg. 6, 347(L) (1967)

MANDELSTAM, S. L.

Studies of Shortwave Solar Radiation in the U.S.S.R.-S. L. Mandelstam. 6, 1834 (1967)

MARGOSHES, Marvin

Laser Probe Excitation in Spectrochemical Analysis.

I: Characteristics of the Source—Stanley D. Rasberry,
Bourdon F. Scribner, and Marvin Margoshes. 6, 81 (1967)

Laser Probe Excitation in Spectrochemical Analysis. II: Investigation of Quantitative Aspects—Stanley D. Rasberry, Bourdon F. Scribner, and Marvin Margoshes. 6, 87 (1967) Canadian Symposium on Applied Spectroscopy, Montreal,

24-26 October 1966—Marvin Margoshes. 6, 591(MR) (1967)

MARLOW, W. C.

Hakenmethode-W. C. Marlow. 6, 1715 (1967)

MATLOFF, Gregory L.

An Application of UBVRI Measurements to the Calculation of Wide-Band Sensor Magnitudes-Gregory L. Matloff. 6, 2009(L) (1967)

MATSUNAGA, Frederick M.

Absorption Coefficient and Photoionization Yield of NO in the Region 580-1350 Å-K. Watanabe. Frederick M. Matsunaga, and Hajime Sakai. §, 391 (1967)

MAUNDERS, E. A.

Laser Mode Selection by Internal Reflection Prisms—L. G. DeShazer and E. A. Maunders. 6, 431 (1967)

MAVROIDES, J. G.

Interband Magnetooptical Studies of Semiconductors and Semimetals—B. Lax and J. G. Mavroides. <u>6</u>, 647 (1967) MAY. A. D.

APS-SMF-CAP Meeting Toronto, 21-23 June, 1967-A. D. May. 6, 1595(MR) (1967)

Spectroscopy Research at the McLennan Physical Laboratories of the University of Toronto—Elizabeth J. Allin, A. D. May, B. P. Stoicheff, J. C. Stryland, and H. L. Welsh. §, 1597 (1967)

McCAMY, C. S.

Photographic Standardization and Research at the National Bureau of Standards—C. S. McCamy. 6, 27 (1967)

McCARTHY, Donald E.

Transmittance of Optical Materials from 0.17 μ to 3.0 μ -Donald E. McCarthy. 6, 1896 (1967)

McCLATCHEY, R. A.

Balloon Observations of the Radiance of the Earth Between 2100 cm⁻¹ and 2700 cm⁻¹—J. H. Shaw, R. A. McClatchey, and P. W. Schaper. 6, 227 (1967)

McCUBBIN, T. K., Jr.

Infrared Spectroscopy with a Copper-Doped Germanium Detector-T. K. McCubbin, Jr., Soemitro Atmosoekarto, and Victor Withstandley. <u>6</u>, 1131(L) (1967)

McLAUGHLIN, T.

Fiber Optics Oximeter-Densitometer for Cardiovascular Studies-N. S. Kapany, D. C. Harrison, N. Silbertrust, R. P. Drake, T. McLaughlin, and H. A. Miller. 6, 565 (1967) McLEAN, E. A.

Optical Measurement of Plasma Densities in a Large Theta-Pinch-E. A. McLean. 6, 2120 (1967)

McMAHON, John M.

A Correlation Between Passive and Active Tests of the Beam Divergence of a Ruby Laser—John M. McMahon. 6, 2191(L) (1967)

McMILLAN, Edwin M.

Otto Hahn, a Scientific Autobiography. Translated and edited by Willy Ley, Introduction by Glenn T. Seaborg—Book Review by Edwin M. McMillan. 6, 779(B) (1967)

McMURTRY, B. J.

Sixth International Conference on Microwave and Optical Generation and Amplification, 12-16 September 1966, Cambridge, England—B. J. McMurtry. 6, 589(MR) (1967) MELROY, D. O.

Holograms with Increased Depth of Subject Field-D. O. Melroy. 6, 2005(L) (1967)

MENDLOWITZ, H.

Optical Constants of Germanium-R. E. LaVilla and H. Mendlowitz. 6, 61 (1967)

MENEELY, Clinton T.

Laser Mirror Transmissivity Optimization in High Power Optical Cavities—Clinton T. Meneely. 6, 1434(L) (1967)

MERRIAM, J. D.

Noise Spectra of a Liquid He Temperature Germanium Bolometer—J. D. Merriam, W. L. Eisenman, and A. B. Naugle. <u>6</u>, 576(L) (1967)

MERRITT, James A.

The Use of a Multipath Cell as a CO₂-N₂ Gas Laser Amplifier and Oscillator-George J. Dezenberg and James A. Merritt. §, 1541 (1967)

MESHKOV, V. V.

Lighting and Quantitative Parameters of Visual Tasks—V. V. Meshkov and M. A. Faermark. §, 1866 (1967)

MEYER-ARENDT, Jurgen R.

Laser Cancer Research. L. Goldman-Book Review by Jurgen R. Meyer-Arendt. 6, 207(B) (1967)

51st Annual Meeting of the Optical Society of America, San Francisco, 18-21 October 1966—Jurgen R. Meyer-Arendt. 6, 315(MR) (1967)

MICHAELS, D. J.

Detectors for the Extreme Ultraviolet. I: Photomultipliers Used in the dc Output Current Mode-D. J. Michels and W. R. Hunter. 6, 385 (1967)

MICHEL, Lothar

On the Saturation Luminance of High Density Microsecond Arc Channels—Heinz Fischer and Lothar Michel. 6, 935 (1967)

MIDDLETON, W. E. K.

L'optique, science de la vision. Vasco Ronchi—Book Review by W. E. K. Middleton. <u>6</u>, 2139(B) (1967)

MILLER, Floyd D.

Changes in Spectral Sensitivity of Multiplier Phototubes Resulting from Changes in Temperature—Almerian R. Boileau and Floyd D. Miller. 6, 1179 (1967)

MILLER, H. A.

Fiber Optics Oximeter-Densitometer for Cardiovascular Studies—N. S. Kapany, D. C. Harrison, N. Silbertrust, R. P. Drake, T. McLaughlin, and H. A. Miller. <u>6</u>, 565 (1967)

MILLER, R. A.

Damage in Glass Induced by Linear Absorption of Laser Radiation—R. A. Miller and N. F. Borrelli. <u>6</u>, 164(L) (1967)

MILWARD, R. C.

Heavily Doped Silicon as a Low Temperature Transmission Filter for the Far Infrared-L. J. Neuringer and R. C. Milward. 6, 978(L) (1967)

MITCHELL, Claybourne, Jr.

A General Relation for D*_{Abk}-D. E. Brown and Claybourne Mitchell, Jr. 6, 574(L) (1967)

MITCHELL, Lawrence C.

U.S.-U.S.S.R. Interacademy Exchanges-Lawrence C. Mitchell. 6, 1884 (1967)

MÖLLER, K. D.

Far Infrared Bandpass Filters and Measurements on a Reciprocal Grid-G. M. Ressler and K. D. Möller. 6, 893 (1967)

MONGA, M. R.

Transient Solutions to a Three Level Maser—M. L. Narchal, M. M. Dhawan, and M. R. Monga. 6, 723 (1967) MONNIER, Richard C.

Fabrication of a 104-cm Mirror from Cer-Vit^R Low Expansion Material-Richard C. Monnier. <u>6</u>, 1437 (1967)

MOORE, Charlotte E.

International Conference on Spectroscopy, Bombay, 9-18 January 1967—Charlotte E. Moore. 6, 836(MR) (1967)

MOOS, H. W.

Spectrometer System for Studying Absorption from Excited Metastable States of Ions in Crystals—H. W. Moos, C. B. Opal, and J. W. Huang. 6, 877 (1967)

MORGAN, H. W.

Activated Uranium as a Getter for Rare Gas Lasers-P. A. Staats and H. W. Morgan. 6, 2194(L) (1967)

MORLAIS, M.

Source d'émission ultraviolette à décharge dans les capillaires initiée par étincelle glissante—M. Morlais et S. Robin. 6, 409 (1967)

MORRISON, C. W.

Optical and Spectral Properties of S-20 Photocathodes on Nesa Substrates—C. W. Morrison. 6, 573(L) (1967)

MORRISON, T. S.

A Programmed Multipulse Range Measurement System— S. Ackerman, T. S. Morrison, and R. L. Iliff. 6, 353(L) (1967)

Analysis of a Programmed Multipulse Laser Range Measurement System—T. S. Morrison and S. Ackerman. <u>6</u>, 1725 (1967)

MORROW, Howard E.

Diffraction Patterns of Alphanumeric Characters—John F. Bryant, W. Thomas Hyde, and Howard E. Morrow. 6, 170(L) (1967)

MOSER, J. F.

Interferometry of Resonator Modes in Submillimeter Wave Lasers-P. Schwaller, H. Steffen, J. F. Moser, and F. K. Kneubühl. 6, 827 (1967)

MOTT, N. F.

F-Centers in Alkali Halides. Supplement 80 Solid-State Physics. Jordan J. Markham-Book Review by N. F. Mott. 6, 1318(B) (1967)

MUDAR, J.

Photoconductive and Photovoltaic Spectral Response in PbI₂
Crystals—G. D. Currie, J. Mudar, and O. Risgin. <u>6</u>, 1137(L)
(1967)

MUELLER, R. K.

Symposium on Optical Technology, Bendix Research Laboratories, Southfield, Michigan, 20 December 1966—R. K. Mueller and Sanford Kern. 6, 1032(MR) (1967)

MULLANEY, George J.

An Example of the Application of Pulsed Light Holography to Aerodynamics—H. H. M. Chau and G. J. Mullaney. 6, 931(L) (1967)

Holographic Moiré Patterns: Their Application to Flow Visualization in Aerodynamics—Henry H. M. Chau and George J. Mullaney. 6, 1428(L) (1967)

MURCRAY, David G.

A Balloon-Borne Grating Spectrometer—David G. Murcray, Frank H. Murcray, and Walter J. Williams. 6, 191 (1967)

4th AFCRL Scientific Balloon Symposium, Wentworth, 12-14 September 1966-D. G. Murcray. 6, 238(MR) (1967)

MURCRAY, Frank H.

A Balloon-Borne Grating Spectrometer—David G. Murcray, Frank H. Murcray, and Walter J. Williams. 6, 191 (1967) NAGARAJA RAO, C. R.

A Research Program Aimed at High Altitude Balloon-Borne Measurements of Radiation Emerging from the Earth's Atmosphere—C. R. Nagaraja Rao and Z. Sekera. 6, 221 (1967)

à

NARCHAL, M. L.

Transient Solutions to a Three Level Maser-M. L. Narchal, M. M. Dhawan, and M. R. Monga. 6, 723 (1967)

NARODNY, L. H.

Paraboloid Figured by Ion Bombardment—L. H. Narodny and M. Tarasevich. 6, 2010(L) (1967)

NAUGLE, A. B.

Noise Spectra of a Liquid He Temperature Germanium Bolometer-J. D. Merriam, W. L. Eisenman, and A. B. Naugle. 6, 576(L) (1967)

NEELAND, J. K.

Multiple Pass Effects in High Efficiency Laser Pumping Cavities—V. Evtuhov and J. K. Neeland. 6, 437 (1967)

NELSON, D. F.

Measurement of Ruby Laser Cavity Losses by Fabry-Perot Resonance-D. F. Nelson and K. F. Rodgers. <u>6</u>, 421 (1967) The Laser. William V. Smith and Peter P. Sorokin-Book Review by D. F. Nelson. <u>6</u>, 1062(B) (1967)

NELSON, E. D.

Spectral Purity for Far Infrared Grating Spectroscopy— E. D. Nelson and J. Y. Wong. §, 1259 (1967)

NELSON, R. E.

An Absolute Calibration Source for Laboratory and Satellite Infrared Spectrometers—A. R. Karoli, J. R. Hickey, and R. E. Nelson. 6, 1183 (1967)

NEPORENT, B. S.

Determination of Moisture in the Atmosphere from Absorption of Solar Radiation—B. S. Neporent, M. S. Kiseleva, A. G. Makogonenko, and V. I. Shlyakov. 6, 1845 (1967)

NESTER, James F.

Measurement of the Room Temperature R₁ Line Width of Forty-Two Rubies-Robert A. Benedict, James F. Nester, and Charles M. Kellington. 6, 429 (1967)

NEUGEBAUER, H. E. J.

Development Method and Modulation Transfer Function of Xerography-H. E. J. Neugebauer. 6, 943 (1967)

NEUMANN, Don B.

Improvement of Recorded Holographic Fringes by Feedback Control-Don B. Neumann and Harold W. Rose. <u>6</u>, 1097 (1967)

NEURIGER, L. J.

Heavily Doped Silicon as a Low Temperature Transmission Filter for the Far Infrared—L. J. Neuringer and R. C. Milward. <u>6</u>, 978(L) (1967)

NICKERSON, Dorothy

Principles of Color Technology. Fred W. Billmeyer, Jr., and Max Saltzman—Book Review by Dorothy Nickerson. 6, 896(B) (1967)

36th Annual Inter-Society Color Council Meeting, 12-13 June, 1967, New York-Dorothy Nickerson. 6, 2022(MR) (1967)

NICOLSKY, G. A.

Direct Solar Radiation up to 30 km and Stratification of Attentuation Components in the Stratosphere-K. Ya. Kondratiev, G. A. Nicolsky, I. Ya. Bandinov, and S. D. Andreev. 6, 197 (1967)

NIXON, Eugene R.

Polishing of Cesium Halide Windows—Jacob L. Jacobson and Eugene R. Nixon. 6, 1583(L) (1967)

NONAKA, Mamoru

A 5-m Integrating Sphere—Mamoru Nonaka, Takeo Kashima, and Yataro Kondo. 6, 757 (1967)

NOVICE, M. A.

à

Optical Means for Enhancing the Sensitivity of a Tri-Alkali Photocathode—M. A. Novice and J. Vine. <u>6</u>, 1171 (1967)

NOYES, G. R.

Analysis of a Modified Frustrated Total Reflection Filter— G. R. Noyes and P. W. Baumeister. £, 355(L) (1967)

NUDELMAN, S.

The Detectivity of Electron Beam Scanning Types of Image Tubes-S. Nudelman. 6, 149 (1967)

O'BRIEN, Brian J.

Quadrant Photometer for Satellite-Borne Auroral and Optical Measurements—David R. Criswell and Brian J. O'Brien. <u>6</u>, 1105 (1967)

O'BRIEN, Philip F.

Luminous Transfer in Discrete Space—Philip F. O'Brien. 6, 1469 (1967)

ODGERS, G. J.

Optics for the Queen Elizabeth II Telescope—G. J. Odgers. 6, 1635 (1967)

OHM, E. A.

A Linear Optical Modulator with High FM Sensitivity-E. A. Ohm. 6, 1233 (1967)

OLSON, Valerie F.

Measurement of Transmission Through a Lens-Valerie F. Olson. <u>6</u>, 1140(L) (1967)

O'NEILL, Edward

Diffraction: Coherence in Optics. M. Françon—Book Review by Edward O'Neill. 6, 918(B) (1967)

O'NEILL, P. K.

A Laser Unequal Path Interferometer for the Optical Shop—
J. B. Houston, Jr., C. J. Buccini, and P. K. O'Neill. 6, 1237

OPAL, C. B.

Spectrometer System for Studying Absorption from Excited Metastable States of Ions in Crystals—H. W. Moos, C. B. Opal, and J. W. Huang. 6, 877 (1967)

OPPENHEIM, U. P.

Integrated Intensity of NO Fundamental—U. P. Oppenheim, Yair Aviv, and Aharon Goldman. 6, 1305 (1967)

ORD. J. L.

A Computer-Operated Following Ellipsometer-J. L. Ord and B. L. Wills. 6, 1673 (1967)

ORDWAY, Fred

X-Ray Diffraction Tables. J. H. Fang and F. Donald Bloss— Book Review by Fred Ordway. 6, 917(B) (1967)

OVEREND, John

A Littrow-McCubbin High Resolution Infrared Spectrometer—John Overend, A. C. Gilby, J. W. Russell, C. W. Brown, J. Beutel, C. W. Bjork, and H. G. Paulat. 6, 457 (1967)

OVSYANKIN, V. V.

Cooperative Luminescence of Solids—P. P. Feofilov and V. V. Ovsyankin. 6, 1828 (1967)

OWENS, James C.

Optical Refractive Index of Air: Dependence on Pressure, Temperature and Composition—James C. Owens. £, 51 (1967)

PAFFRATH, L.

A Moiré Fringe Method of Fabry-Perot Spectrometer Scanning—G. G. Shepherd and L. Paffrath. <u>6</u>, 1659 (1967)

PALIK, E. D.

A Brief Survey of Magnetooptics—E. D. Palik. 6, 597 (1967) A Bibliography of Magnetooptics of Solids—E. D. Palik and

B. W. Henvis. 6, 603 (1967)

A CdS Soleil Compensator for the Near Infrared—E. D. Palik and B. W. Henvis. 6, 2198(L) (1967)

PALMIERI, G.

Self Modulating, Derivative Optical Spectroscopy. Part II: Experimental—G. Bonfiglioli, P. Brovetto, G. Busca, S. Levialdi, G. Palmieri and E. Wanke. <u>6</u>, 447 (1967)

PAQUET, L. Improvements to a Balloon-Borne Sun-Seeker—A. K. Laflamme and L. Paquet. 6, 235 (1967)

Frictionless Bearing for Balloon-K. R. Park, L. Paquet, and A. K. Laflamme. 6, 346(L) (1967)

PARIS, D. P.

A Computer Generated Spatial Filter, Applied to Code Translation—A. W. Lohmann, D. P. Paris, and H. W. Werlich. 6, 1139(L) (1967)

Variable Fresnel Zone Pattern—A. W. Lohmann and D. P. Paris. 6, 1567 (1967)

Binary Fraunhofer Holograms, Generated by Computer-A. W. Lohmann and D. P. Paris. 6, 1739 (1967)

26-27 June 1967 SPIE Seminar on Computerized Imaging Techniques, Washington, D. C.—D. P. Paris. 6, 2023(MR) (1967)

PARK, K. R.

Frictionless Bearing for Balloon-K. R. Park, L. Paquet, and A. K. Laflamme. 6, 346(L) (1967)

PATEL, C. K. N.

17th PIB Symposium on Modern Optics, Waldorf Astoria, New York, 22-24 March 1967—C. K. N. Patel. <u>6</u>, 2021(MR) (1967)

PAULAT, H. G.

A Littrow-McCubbin High Resolution Infrared Spectrometer—John Overend, A. C. Gilby, J. W. Russell, C. W. Brown, J. Beutel, C. W. Bjork, and H. G. Paulat. 6, 457 (1967)

PEGIS, R. J.

Semiautomatic Generation of Optical Prototypes—R. J. Pegis, T. P. Vogl, A. K. Rigler, and R. Walters. 6, 969 (1967)

PELLICORI, S. F.

An Automatic Polarimeter for Space Applications—S. F. Pellicori and P. R. Gray. 6, 1121 (1967)

PENCHINA, Claude M.

Reduction of Stray Light in In-Plane Grating Spectrometers—Claude M. Penchina. 6, 1029 (1967)

PENNDORF, R.

Tables of Light Scattering. Part I: Tables of Angular Functions. K. S. Shifrin and I. L. Zelmanovich—Book Review by R. Penndorf. §, 2019(B) (1967)

PENNINGTON, K. S.

Multicolor Imaging from Holograms Formed on Two-Dimensional Media—R. J. Collier and K. S. Pennington. 6, 1091 (1967)

PENZIAS, Gunter J.

A Rapid-Scan Spectrometer That Sweeps Corner Mirrors Through the Spectrum-Stanley A. Dolin, Herman A. Kruegle, and Gunter J. Penzias. 6, 267 (1967)

PERNICK, B. J.

Diffraction Patterns of Chinese Characters—B. J. Pernick, C. Bartolotta, and D. Yustein. 6, 1421(L) (1967)

PERNICKA, John C.

Improvement of Underwater Visibility by Reduction of Backscatter with a Circular Polarization Technique—Gary D. Gilbert and John C. Pernicka. 6, 741 (1967)

PERRY, Barbour Lee

Preservation of Color Integrity in Multistage Photography— Barbour Lee Perry. <u>6</u>, 2158 (1967) PERRY, C. H.

Infrared Reflectance and Optical Constants of Tektites—C. H. Perry and J. D. Wrigley, Jr. 6, 586(L) (1967)

PETERKA. J.

Criteria for Quantitative Schlieren Interferometry—J. B. Brackenridge and J. Peterka. 6, 731 (1967)

PETERS, C. J.

Optical Superheterodyne Receiver—R. F. Lucy, K. Lang, C. J. Peters, and K. Duval. 6, 1333 (1967).

PETERS, D. W.

Infrared Modulator Utilizing Field-Induced Free Carrier Absorption-D. W. Peters. 6, 1033 (1967)

PFEIFFER, H. G.

16th Annual X-Ray Conference on the Applications of X-Ray Analysis, 9-11 August 1967, Denver-H. G. Pfeiffer. 6, 2078(MR) (1967)

PHELPS, F. M. III

Atomic Transition Probabilities Volume I: Elements Hydrogen through Neon. W. L. Wiese, M. W. Smith, and B. M. Glennon-Book Review by F. M. Phelps III. <u>6</u>, 1406(B) (1967)

Bibliography on Atomic Transition Probabilities. B. M. Glennon and W. L. Wiese—Book Review by F. M. Phelps III. 6, 1406(B) (1967)

PHILLIPS, W. G.

A Polarizer for the Vacuum Ultraviolet—D. L. Steinmetz, W. G. Phillips, M. Wirick, and F. F. Forbes. <u>6</u>, 1001 (1967) PILAT, Michael J.

Optical Efficiency Factors for Concentric Spheres—Michael J. Pilat. <u>6</u>, 1555 (1967)

PILLER, Herbert

Determination of the Optical Verdet Coefficient in Semiconductors and Insulators—Cedric J. Gabriel and Herbert Piller. 6, 661 (1967)

PINNINGTON, E. H.

A Simple Order Sorter for Use with Diffraction Gratings
Blazed for High Orders—E. H. Pinnington. 6, 1655 (1967)

PLASS, Gilbert N.

Selected Papers on the Transfer of Radiation. Edited by Donald H. Menzel—Book Review by Gilbert N. Plass. 6, 1062(B) (1967)

Electromagnetic Scattering from Absorbing Spheres—George W. Kattawar and Gilbert N. Plass. <u>6</u>, 1377 (1967)

Resonance Scattering from Absorbing Spheres—George W. Kattawar and Gilbert N. Plass. 6, 1549 (1967)
Radiation from Nonisothermal Gases—Gilbert N. Plass.

6, 1995 (1967)

PLATZ, Peter
A Two-Channel Fabry-Perot Interferometer for the Measurement of Doppler Temperatures—Peter Platz. §, 1205

(1967) PLONUS, M. A.

Advances in Microwaves, Vol. 1. Edited by Leo Young— Book Review by M. A. Plonus. 6, 2175(B) (1967)

PLYLER, Earle K.

A Four-Pass High Resolution Spectrometer for the Near Infrared—Robert H. Hunt, Charles W. Robertson, and Earle K. Plyler. 6, 1295 (1967)

POLE R V

Reactive Optical Information Processing. I: Theory of Information Recovery and Resonator Mode Structure—R. V. Pole, N. Wieder, and E. S. Barrakette. 6, 1571 (1967)

Reactive Optical Information Processing. II: Factors Affecting the Applicability and Efficiency of the Method-H. Wieder and R. V. Pole. §, 1761 (1967) POLSTER, Harry D.

Fundamentals of Dimensional Metrology. T. Busch-Book Review by Harry D. Polster. 6, 177(B) (1967)

A Multiple-Beam Interferometer for Use with Spherical Wavefronts-L. R. Heintze, H. D. Polster, and J. Vrabel. 6, 1924 (1967)

POPOV, Yu. M.

Semiconductor Lasers-Yu. M. Popov. 6, 1818 (1967)

POST, Daniel

Analysis of Moiré Fringe Multiplication Phenomena—Daniel Post. 6, 1938 (1967)

POST, E. J.

Differential Space, Quantum Systems, and Prediction. Norbert Wiener, Armand Siegel, Bayard Rankin, and William Ted Martin—Book Review by E. J. Post. 6, 2020(B) (1967)

POTTER, R. J.

Optical and Electro-optical Information Processing. Edited by James T. Tippett, David A. Berkowitz, Lewis C. Clapp, Charles J. Koester, and Alexander Vanderburgh, Jr.—Book Review by Robert J. Potter. 6, 207(B) (1967)

POTTS, W. J., Jr.

Optimizing the Operating Parameters of Infrared Spectrometers—W. J. Potts, Jr., and A. Lee Smith. 6, 257 (1967)

PRATESI, R

Spiking Emission from Many-Element Lasers-R. Pratesi. 6, 1243 (1967)

PRICE, W. C.

Molecular Spectra and Molecular Structure. Vol. III: Electronic Spectra and Electronic Structure of Polyatomic Molecules. Gerhard Herzberg—Book Review by W. C. Price. 6, 1068(B) (1967)

PRIMAK, William

The Determination of the Absolute Contours of Optical Flats—William Primak. 6, 1917 (1967)

PROWSE, D. B.

Astigmatism in the Mach-Zehnder Interferometer—D. B. Prowse. 6, 773(L) (1967)

Further Comments on Astigmatism in the Mach-Zehnder Interferometer—D. B. Prowse. 6, 1583(L) (1967)

PURCELL, J. D.

An Echelle Spectrograph for Middle Ultraviolet Solar Spectroscopy from Rockets—R. Tousey, J. D. Purcell, and D. L. Garrett. 6, 365 (1967)

RADISAVLJEVIĆ, K.

Electrooptic Constant of Cadmium Telluride—O. M. Stafsudd, F. A. Haak, and K. Radisavljević. <u>6</u>, 1276(L) (1967)

RAMBERG, Edward G.

Optical Factors in the Photoemission of Thin Films—Edward G. Ramberg. 6, 2163 (1967)

RAMSEY, J. V.

Apparent Shape of Broad-Band Multilayer Reflecting Surfaces—J. V. Ramsey and P. E. Ciddor. 6, 2003(L) (1967) RANDALL, C. M.

Metal Mesh Interference Filters for the Far Infrared—R. D. Rawcliffe and C. M. Randall. 6, 1353 (1967)

Fast Fourier Transform for Unequal Number of Input and Output Points—C. M. Randall. 6, 1432(L) (1967)

Refractive Indices of Germanium, Silicon, and Fused Quartz in the Far Infrared—C. M. Randall and R. D. Rawcliffe. 6, 1889 (1967)

RASBERRY, Stanley D.

Laser Probe Excitation in Spectrochemical Analysis.

I: Characteristics of the Source-Stanley D. Rasberry,
Bourdon F. Scribner, and Marvin Margoshes. 6, 81 (1967)

Laser Probe Excitation in Spectrochemical Analysis. II: Investigation of Quantitative Aspects—Stanley D. Rasberry, Bourdon F. Scribner, and Marvin Margoshes. 6, 87 (1967) RAST, H. E.

Liquid Phosphor Cell to Extend Photomultiplier Response to the Ultraviolet—H. E. Rast and H. H. Caspers. 6, 1577(L) (1967)

RATERINK, H. J.

Development of a Ring Laser for Polarimetric Measurements—H. J. Raterink, H. v. d. Stadt, C. H. F. Velzel, and G. Dijkstra. <u>6</u>, 813 (1967)

RAWCLIFFE, R. Douglas

The Middle Ultraviolet; Its Science and Technology. Edited by A. E. S. Green-Book Review by R. Douglas Rawcliffe. 6, 1075(B) (1967)

Metal Mesh Interference Filters for the Far Infrared—R. D. Rawcliffe and C. M. Randall. 6, 1353 (1967)

Refractive Indices of Germanium, Silicon, and Fused Quartz in the Far Infrared—C. M. Randall and R. D. Raweliffe. 6, 1889 (1967)

RAYMOND, Frederick W.

Earth Radiance and Reflectivities Relative to the Response of a Silicon Detector—Richard H. Krönke and Frederick W. Raymond. 6, 2110 (1967)

REHNBERG, John D.

An Earth-Based, Infrared Lunar Mapper for Thermal and Composition Studies—John D. Rehnberg, John R. Yoder, and Graham H. Hunt. 6, 1111 (1967)

RESIMAN, Elias

Comparison of Fog Scattered Laser and Monochromatic Incoherent Light—Elias Resiman, Gordon Cumming, and Charlotte Bartky. 6, 1969 (1967)

RESSLER, G. M.

Far Infrared Bandpass Filters and Measurements on a Reciprocal Grid-G. M. Ressler and K. D. Möller. <u>6</u>, 893 (1967)

RHODES, Curtis A.

Transmittance Properties of a Curved Specularly Reflecting Duct Irradiated by a Collimated Beam—Curtis A. Rhodes. 6, 1767 (1967)

RIBBENS, William B.

An Optical Circulator Using Quarter-Wave Plates-William Ribbens, David Stodolsky, and Donald Gillespie. §, 581(L) (1967)

Author's Reply to Comment on Optical Circulators—William B. Ribbens. 6, 1277(L) (1967)

RICHARDS, Oscar W.

New York Microscopical Society Meeting, New York City, 29-31 March 1967—Oscar W. Richards. <u>6</u>, 1297(MR) (1967)

RIGLER, A. K.

Semiautomatic Generation of Optical Prototypes-R. J. Pegis, T. P. Vogl, A. K. Rigler, and R. Walters. 6, 969 (1987)

RISGIN, O.

Photoconductive and Photovoltaic Spectral Response in PbI₂ Crystals-G. D. Currie, J. Mudar, and O. Risgin. <u>6</u>, 1137(L) (1967)

ROBERTS, G. L.

An Image-Scanning Three-Beam Photoelectric Photometer for Astronomical Observations—G. L. Roberts. 6, 907 (1967)

ROBERTSON, Charles W.

A Four-Pass High Resolution Spectrometer for the Near Infrared—Robert H. Hunt, Charles W. Robertson, and Earle K. Plyler. <u>6</u>, 1295 (1967) ROBIN, S.

Source d'émission ultraviolette à décharge dans les capillaires initiée par étincelle glissante—M. Morlais et S. Robin. £, 409 (1967)

ROBINSON, David

Plasma Diagnostics by Spectroscopic Methods—David Robinson and Peter D. Lenn. 6, 983 (1967)

ROCHOW, T. G.

International Conference on the Role of the Microscope in Scientific Investigation. Imperial College, London, 18-22 July 1966-T. G. Rochow. §, 238(MR) (1967)

Advances in Optical and Electron Microscopy, Vol. 1. Edited by R. Barer and V. E. Cosslett-Book Review by T. G. Rochow. 6, 1042(B) (1967)

RODGERS, K. F.

Measurement of Ruby Laser Cavity Losses by Fabry-Perot Resonance-D. F. Nelson and K. F. Rodgers. 6, 421 (1967)

RONCHI, L.

Time-Resolved Measurements of the Phase Fluctuations of a Coherent Beam at the Emergence from a Turbulent Layer-P. Burlamacchi, A. Consortini, and L. Ronchi. 6, 1273(L) (1967)

ROOD, Joseph L.

Fall Meeting of the Glass Division of the American Ceramic Society, Bedford Springs, 12-14 October 1966—Joseph L. Rood. 6, 330 (1967)

ROQUITTE, B. C.

A High Intensity Flash Lamp for Vacuum Ultraviolet Photochemical Studies—B. C. Roquitte. 6, 415 (1967)

ROSE, Harold W.

Improvement of Recorded Holographic Fringes by Feedback Control—Don B. Neumann and Harold W. Rose. <u>6</u>, 1097 (1967)

ROSENDAHL, Gottfried R.

A New Derivation of Third-Order Aberration Coefficients— Gottfried R. Rosendahl. <u>6</u>, 765 (1967)

SPIE Seminar-in-Depth on Photo-Optical Systems Evaluation, Rochester, 11-12 May 1967—Gottfried R. Rosendahl. 6, 1298(MR) (1967)

ROSENSTOCK, Herbert B.

Lattice Infrared Absorption and Raman Scattering in Finite Crystals—Marvin Hass and Herbert B. Rosenstock. 6, 2079 (1967)

ROSIN, Seymour

Color-Corrected Mangin Mirror—Seymour Rosin and Max Amon. 6, 963 (1967)

ROSNER, R. D.

Clamped Electrooptic Coefficients of KDP and Quartz-R. D. Rosner, E. H. Turner, and I. P. Kaminow. <u>6</u>, 778(L) (1967)

A Bidirectional Reflection Accessory for Spectroscopic Measurement-Graham R. Hunt and Howard P. Ross. 6, 1687 (1967)

ROTH, C.

Induced Birefringence of Glass Laser Rods Pumped by Flash Lamps—S. D. Sims, A. Stein, and C. Roth. 6, 579 (1967)

ROTH, N. V.

Plasma Spectroscopy in the Vacuum Ultraviolet and Soft X-ray Regions—R. C. Elton and N. V. Roth. 6, 2071 (1967) RUNDLE, H. N.

Optical Upper Atmosphere Investigations at the University of Saskatchewan-D. M. Hunten, H. N. Rundle, G. G. Shepherd, and A. Vallance Jones. 6, 1609 (1967)

RUSCIO, J. T.

Measurement of the Laser Frequency Control Characteristics of Piezoelectric Transducers—W. B. Jones, Jr., and J. T. Ruscio. 6, 1005 (1967)

RUSSELL, J. W.

A Littrow-McCubbin High Resolution Infrared Spectrometer

-John Overend, A. C. Gilby, J. W. Russell, C. W. Brown,
J. Beutel, C. W. Bjork, and H. G. Paulat. 6, 457 (1967)

RYMER, T. B.

Diffraction Methods in Materials Science. J. B. Cohen-Book Review by T. B. Rymer. 6, 208(B) (1967)

SADASHIGE, Koichi

Image Intensifier TV Camera System, Its Performance and Applications—Koichi Sadashige. 6, 2179 (1967)

SAIEDV F

Remote Sensing of Surface and Cloud Temperatures Using the 899-cm⁻¹ Interval—F. Saiedy and D. T. Hilleary. 6, 911 (1967)

SAKAI, Hajime

Absorption Coefficient and Photoionization Yield of NO in the Region 580-1350 Å-K. Watanabe. Frederick M. Matsunaga, and Hajime Sakai. 6, 391 (1967)

SAMSON, James A. R.

Vacuum Ultraviolet Research-James A. R. Samson. 6, 403 (1967)

SANDERS, C. L.

A Versatile Spectroradiometer and Its Applications—C. L. Sanders and W. Gaw. 6, 1639 (1967)

SANDERSON, John A.

OSA Research and Education—John A. Sanderson. <u>6</u>, 402, 954, 1194, 1502 (1967)

Optics at The Naval Research Laboratory—J. A. Sanderson. 6, 2029 (1967)

Improved Responsivity of Gas Filled Thermopiles-L. F. Drummeter, Jr., and J. A. Sanderson. 6, 2196(L) (1967)

SANDERSON, R. B.

Measurement of Rotational Line Strengths in HCl by Asymmetric Fourier Transform Techniques—R. B. Sanderson. 6, 1527 (1967)

SAUNDERS, James B.

Proceedings of the Conference on Photographic and Spectroscopic Optics, Tokyo and Kyoto, 1964—Book Review by James B. Saunders. 6, 177(B) (1967)

A Simple, Inexpensive Wavefront Shearing Interferometer— J. B. Saunders. <u>6</u>, 1581(L) (1967)

SAWYER, G. A.

Fractional-Fringe Holographic Plasma Interferometry— F. C. Jahoda, R. A. Jeffries, and G. A. Sawyer. <u>6</u>, 1407 (1967)

SCHAPER, P. W.

Balloon Observations of the Radiance of the Earth Between 2100 cm⁻¹ and 2700 cm⁻¹—J. H. Shaw, R. A. McClatchey, and P. W. Schaper. <u>6</u>, 227 (1967)

SCHEGGI, A. M.

Unstable Region in the Flat-Roof Resonator—P. F. Checcacci, A. Consortini, and A. M. Scheggi. 6, 584(L) (1967) SCHLEIGER, E. R.

Measurement of Total Hemispherical Emittance of Transparent Materials at Low Temperature—E. R. Schleiger. 6, 919 (1967)

SCHLUETER, P.

Photomultiplier Tubes for Satellite Instrumentation— P. Schlueter. 6, 239 (1967) SCHMELTZER, R. A.

The Effect of Atmospheric Scintillation on an Optical Data Channel—Laser Radar and Binary Communications—D. L. Fried and R. A. Schmeltzer. 6, 1729 (1967)

SCHMIEDER, Robert W.

Operator Formulation of Plane Mirror Systems-Robert W. Schmieder. 6, 537 (1967)

Regions of Viewability for a Pair of Intersecting Semiinfinite Plane Mirrors-Robert W. Schmieder. <u>6</u>, 773(L) (1967)

SCHNEIDER, Irwin

Information Storage Using the Anistrophy of Color Centers in Alkali Halide Crystals—Irwin Schneider. <u>6</u>, 2197(L) (1967)

SCHNEIDER, William E.

The New Tungsten-Filament Lamp Standards of Total Irradiance—Ralph Stair, William E. Schneider, and William B. Fussell. 6, 101 (1967)

Spectral Irradiances as Determined Through the Use of Prism and Filter Spectroradiometric Techniques—William E. Schneider, Ralph Stair, and John K. Jackson. <u>6</u>, 1479 (1967)

SCHÖNHEIT. E.

XUV Spectra of a New Light Source—J. D. Brombach and E. Schönheit. 6, 571(L) (1967)

SCHROEDER, Daniel J.

An Echelle Spectrometer-Spectrograph for Astronomical Use-Daniel J. Schroeder. 6, 1981 (1967)

SCHULZ, G.

Precise Measurement of Planeness-G. Schulz and J. Schwider. 6, 1077 (1967)

SCHWALLER, P.

Interferometry of Resonator Modes in Submillimeter Wave Lasers-P. Schwaller, H. Steffen, J. F. Moser, and F. K. Kneubühl. <u>6</u>, 827 (1967)

SCHWIDER, J.

Precise Measurement of Planeness-G. Schulz and J. Schwider. 6, 1077 (1967)

SCIDMORE, W. H.

A 50.8-cm Focal Length, f/1 Catadioptric Objective—P. R. Yoder, Jr., and W. H. Scidmore. 6, 973 (1967)

SCRIBNER, Bourdon F.

Laser Probe Excitation in Spectrochemical Analysis.

I: Characteristics of the Source—Stanley D. Rasberry,
Bourdon F. Scribner, and Marvin Margoshes. 6, 81 (1967)

Laser Probe Excitation in Spectrochemical Analysis. II: Investigation of Quantitative Aspects—Stanley D. Rasberry, Bourdon F. Scribner, and Marvin Margoshes. 6, 87 (1967)

SEACHMAN, Ned J.

Multiple Beam Interference in Opaque Photocathodes—Ned J.

Seachman. 6, 356(L) (1967)

SEIDMAN, J. B.

Heterodyne and Photon-Counting Receivers for Optical Communications—D. L. Fried and J. B. Seidman. 6, 245 (1967) SEILLER, F. E.

Laser Harmonics Useful for Frequency Translation—W. S. Lovell, M. M. Anderson, and F. E. Seiller. 6, 1430(L) (1967)

SEKERA, Z.

A Research Program Aimed at High Altitude Balloon-Borne Measurements of Radiation Emerging from the Earth's Atmosphere—C. R. Nagaraja Rao and Z. Sekera. 6, 221 (1967)

SEVIGNY, Léandre

Three-Beam Holographic Interferometry-Manoranjan De and Léandre Sevigny. 6, 1665 (1967)

SHAFER, Arthur B.

Correcting for Astigmatism in the Czerny-Turner Spectrometer and Spectrograph—Arthur B. Shafer. 6, 159(L) (1967)

SHARPLESS, W. M.

Performance of LiTaO₃ and LiNbO₃ Light Modulators at 4 GHz-I. P. Kaminow and W. M. Sharpless. <u>6</u>, 351(L) (1967)

SHASHOUA, V. E.

An Automatic Recording Magnetooptical Rotation Spectropolarimeter—J. G. Forsythe, R. Kieselbach, and V. E. Shashoua. <u>6</u>, 699 (1967)

SHAW, J. H.

Balloon Observations of the Radiance of the Earth Between 2100 cm⁻¹ and 2700 cm⁻¹—J. H. Shaw, R. A. McClatchey, and P. W. Schaper. <u>6</u>, 227 (1967)

SHEPHERD, G. G.

Optical Upper Atmosphere Investigations at the University of Saskatchewan-D. M. Hunten, H. N. Rundle, G. G. Shepherd, and A. Vallance Jones. 6, 1609 (1967)

A Moiré Fringe Method of Fabry-Perot Spectrometer Scanning-G. G. Shepherd and L. Paffrath. 6, 1659 (1967)

SHERMAN, George C.

Hologram Copying by Gabor Holography of Transparencies— George C. Sherman. 6, 1749 (1967)

SHINER, T.

Radiofrequency Source of Potassium Resonance Radiation for Use in Kilogauss Magnetic Fields—W. Berdowski, T. Shiner, and L. Krause. §, 1683 (1967)

SHLYAKOV, V. I.

Determination of Moisture in the Atmosphere from Absorption of Solar Radiation—B. S. Neporent, M. S. Kiseleva, A. G. Makogonenko, and V. I. Shlyakov. 6, 1845 (1967)

SHOEMAKER, W. S.

Light-Sensitive Systems: Chemistry and Applications of Nonsilver Halide Photographic Processes. Jaromir Kosar —Book Review by W. S. Shoemaker. <u>6</u>, 891(B) (1967)

SHUKHTIN, A. M.

A Crossed Interferometric-Spectrographic Method of Studying Physical Processes—A. M. Shukhtin. 6, 1855 (1967)

SHUSHCHINSKII, M. M.

Investigations in the Soviet Union of Induced Combination Scattering of Radiation—M. M. Shushchinskii. <u>6</u>, 1805 (1967)

SIEGEL, Seymour

International Symposium on the Triplet State 14-19 February 1967, American University of Beirut, Lebanon-Seymour Siegel. 6, 1031(MR) (1967)

SILBERTRUST, N.

Fiber Optics Oximeter-Densitometer for Cardiovascular Studies—N. S. Kapany, D. C. Harrison, N. Silbertrust, R. P. Drake, T. McLaughlin, and H. A. Miller. <u>6</u>, 565 (1967)

SIMMONS, F. S.

Further Notes on Band Models for Nonisothermal Radiating Gases—F. S. Simmons. 6, 1423(L) (1967)

SIMONS, C. A. J.

Abraham Cornelis Sebastiaan van Heel-C. A. J. Simons and W. van Vonno. 6, 799 (1967)

Lens and Surface Testing with Compact Interferometers—A. C. S. van Heel and C. A. J. Simons. 6, 803 (1967)

Induced Birefringence of Glass Laser Rods Pumped by Flash Lamps—S. D. Sims, A. Stein, and C. Roth. 6, 579 (1967)

SINCLAIR, D. C.

Transverse Mode Structure in Unstable Optical Cavities— D. C. Sinclair and T. H. E. Cottrell. 6, 845 (1967) SINGER, S. Fred

Introduction to Atomic and Space Physics. A. E. S. Green and P. J. Wyatt-Book Review by S. Fred Singer. 6, 383(B) (1967)

SINGH, K.

Resolving Power of the Fabry-Perot Interferometer and the Reflection Echelon Used for Visual Observations of Absorption Spectra—P. K. Katti and K. Singh. <u>6</u>, 1134(L) (1967)

SINTSOV, V. N.

Evaporographic Image Quality-V. N. Sintsov. 6, 1851 (1967)

SISNEROS, Thomas E.

Measurement of Short Luminescence Decay Times—Thomas E. Sisneros. 6, 417 (1967)

SIZELOVE, John R.

Analysis of Translucent and Opaque Photocathodes—John R. Sizelove and John A. Love, III. £, 356(L) (1967)

Analysis of a Multiple Reflective Translucent Photocathode-John R. Sizelove and John A. Love, III. 6, 443 (1967)

Narrow Spectral Response Schottky Photodiodes—John R. Sizelove and John A. Love, III. 6, 1777 (1967)

SKLIZKOV, G. V.

Laser Application for the Production and Diagnostics of Pulsed Plasma—N. G. Basov, O. N. Krokhin, and G. V. Sklizkov. <u>6</u>, 1814 (1967)

SLOAN, T. R.

Design of Double Gauss Systems Using Aspherics-T. R. Sloan and R. E. Hopkins. 6, 1911 (1967)

SMITH, A. Lee

Optimizing the Operating Parameters of Infrared Spectrometers-W. J. Potts, Jr., and A. Lee Smith. 6, 257 (1967)

Twentieth Anniversary Symposium on Molecular Structure and Spectroscopy, Ohio State University, 6-10 September 1966—A. Lee Smith. <u>6</u>, 316(MR) (1967)

SMITH, Chester L.

Direct Nondestructive Pumping of Ruby Lasers by Chemical Means—Chester L. Smith, Eugene Homentowski, and Charles Stokes. <u>6</u>, 1130(L) (1967)

SMITH, Donald S.

Detection of Ultra High Frequency Light Modulation with a Photomultiplier—Donald S. Smith. <u>6</u>, 1780(L) (1967)

Temperature Compensated Gas Laser—D. S. Smith, L. H. Jones, and K. M. Baird. <u>6</u>, 2195(L) (1967)

SMITH, G. P.

The Structure of Glass. Volume 6: Properties, Structure, and Physical-Chemical Effects. Volume 7: Methods of Studying the Structure of Glass. Edited by E. A. Porai-Koshits—Book Review by G. P. Smith. 6, 1208(B) (1967)

SMITH, Warren J.
Optical Computations Using a Time Sharing Computer—Warren J. Smith. 6, 585(L) (1967)

SOKOLOV, M. V.

Ultraviolet Installations of Beneficial Action—N. M. Dantsig, D. N. Lazarev, and M. V. Sokolov. 6, 1872 (1967)

STAATS, P. A

Activated Uranium as a Getter for Rare Gas Lasers-P. A. Staats and H. W. Morgan. 6, 2194(L) (1967)

STADT, H. v. d.

Development of a Ring Laser for Polarimetric Measurements-H. J. Raterink, H. v. d. Stadt, C. H. F. Velzel, and G. Dijkstra. <u>6</u>, 813 (1967)

STAFSUDD, O. M.

Electrooptic Constant of Cadmium Telluride—O. M. Stafsudu, F. A. Haak, and K. Radisavljević. 6, 1276(L) (1967) STAIR, Ralph

The New Tungsten-Filament Lamp Standards of Total Irradiance—Ralph Stair, William E. Schneider, and William B. Fussell. 6, 101 (1967)

Spectral Irradiances as Determined Through the Use of Prism and Filter Spectroradiometric Techniques—William E. Schneider, Ralph Stair, and John K. Jackson. <u>6</u>, 1479 (1967)

STARUNOV, V. S.

Some Studies of the Spectra of Thermal and Stimulated Molecular Scattering of Light-I. L. Fabelinskii and V. S. Starunov. 6, 1793 (1967)

STAVROUDIS, Orestes N.

Resolving Power Predictions from Lens Design Data— Orestes N. Stavroudis. 6, 129 (1967)

Recent Advances in Optimization Techniques. Abrahim Lavi and Thomas P. Vogl—Book Review by O. N. Stavroudis. 6, 488(B) (1967)

STEFFEN. H.

Interferometry of Resonator Modes in Submillimeter Wave Lasers-P. Schwaller, H. Steffen, J. F. Moser, and F. K. Kneubühl. <u>6</u>, 827 (1967)

STEIN A

Induced Birefringence of Glass Laser Rods Pumped by Flash Lamps—S. D. Sims, A. Stein, and C. Roth. <u>6</u>, 579 (1967)

Mode Selection for Giant Pulse Ruby Lasers-Alexander Stein. §, 2193(L) (1967)

STEINMETZ, D. L.

A Polarizer for the Vacuum Ultraviolet—D. L. Steinmetz, W. G. Phillips, M. Wirick, and F. F. Forbes. <u>6</u>, 1001 (1967) STEWART. James E.

Polarization Interferometer for the Determination of Spectral Modulation Transfer Functions of Monochromators— James E. Stewart. 6, 1523 (1967)

STODOLSKY, David

An Optical Circulator Using Quarter-Wave Plates—William Ribbens, David Stodolsky, and Donald Gillespie. 6, 581(L) (1967)

STOFFEL, A.

A Mechanical Modulator for Use with Precision Ellipsometers—A. Stoffel. 6, 1279(L) (1967)

STOICHEFF, B. P.

Spectroscopy Research at the McLennan Physical Laboratories of the University of Toronto—Elizabeth J. Allin, A. D. May, B. P. Stoicheff, J. C. Stryland, and H. L. Welsh. 6, 1597 (1967)

STOKES, Charles

Direct Nondestructive Pumping of Ruby Lasers by Chemical Means—Chester L. Smith, Eugene Homentowski, and Charles Stokes. 6, 1130(L) (1967)

STRANGE, M. G.

Filter Wedge Spectrometer for Field Use-W. A. Hovis, Jr., W. A. Kley, and M. G. Strange. 6, 1057 (1967)

STREETE, John L.

Near Infrared Atmospheric Absorption Over a 25-km Horizontal Path at Sea Level—John L. Streete, J. H. Taylor, and S. L. Ball. 6, 489 (1967)

STRONG, John

Balloon Telescope Optics-John Strong. 6, 179 (1967)

STRYLAND, J. C.

Spectroscopy Research at the McLennan Physical Laboratories of the University of Toronto-Elizabeth J. Allin. A. D. May, B. P. Stoicheff, J. C. Stryland, and H. L. Welsh. 6, 1597 (1967) SWENNEN, J. P. J. W.

Diameter Optimization for Maximum Vertical Penetration of a Beam of Collimated Optical Radiation Normally Incident on the Ocean Surface—J. P. J. W. Swennen. 6, 737 (1967) TARISZ. G. C.

Multiply Diffracted Light in Ebert Monochromators—A. Watanabe and G. C. Tabisz. 6, 1132(L) (1967)

TABOR, W. J.

Multiple Imaging Device Using Wollaston Prisms—W. J. Tabor. 6, 1275(L) (1967)

TANNER, L. H.

Astigmatism in the Mach-Zehnder Interferometer-L. H. Tanner. 6, 1583(L) (1967)

TARASEVICH, M.

Paraboloid Figured by Ion Bombardment—L. H. Narodny and M. Tarasevich. 6, 2010(L) (1967)

TATARSKII, V. I.

Wave Propagation and Turbulent Media. R. N. Adams and E. D. Denman-Book Review by V. I. Tatarskii. <u>6</u>, 2018(B) (1967)

TAYLOR, J. H.

Near Infrared Atmospheric Absorption Over a 25-km Horizontal Path at Sea Level—John L. Streete, J. H. Taylor, and S. L. Ball. 6, 489 (1967)

TAYLOR, Raymond L.

Synchronized High Speed Scanning Infrared Spectrometer— John C. Camm, Raymond L. Taylor, and Robert Lynch. 6, 885 (1967)

TAYLOR, William H. II

Radiant Properties of Strong Shock Waves in Argon-William H. Taylor II, and John W. Kane, Jr. <u>6</u>, 1493 (1967)

THOMAS, Richard N.

Radiative Contributions to Energy and Momentum Transport in a Gas. D. H. Sampson—Book Review by Richard N. Thomas. 6, 2200(B) (1967)

THOMPSON, Brian J.

Application of Hologram Techniques for Particle Size Analysis—Brian J. Thompson, John H. Ward, and William R. Zinky. 6, 519 (1967)

Generalized Harmonic Analysis and Tauberian Theorems. Norbert Wiener—Book Review by Brian J. Thompson. 6, 918(B) (1967)

TIMOTHY, A. F.

The Performance of Open Structure Photomultipliers in the 1100 Å to 250 Å Wavelength Region—A. F. Timothy, J. G. Timothy, and A. P. Willmore. 6, 1319 (1967)

TIMOTHY, J. G.

The Performance of Open Structure Photomultipliers in the 1100 Å to 250 Å Wavelength Region—A. F. Timothy, J. G. Timothy, and A. P. Willmore. 6, 1319 (1967)

TISCHER, F. J.

Gas Prism for Light Beams-F. J. Tischer. 6, 352(L) (1967) TOBIN, M.

Spectral Measurements from 1.6 μ to 5.4 μ of Natural Surfaces and Clouds—W. A. Hovis, Jr., and M. Tobin. 6, 1399 (1967)

TOMIYASU, K.

Increasing Pump Flux of Lasers by Immersion-K. Tomiyasu. <u>6</u>, 1578(L) (1967)

TOMKINS, F. S.

A Modified King Furnace for Absorption Spectroscopy of Small Samples—F. S. Tomkins and B. Ercoli. 6, 1299 (1967)

TORGE, Reimund

Testing Fabry-Perot Interferometers—Reimund Torge. 6, 575(L) (1967)

TOUSEY. Richard

An Echelle Spectrograph for Middle Ultraviolet Solar Spectroscopy from Rockets—R. Tousey, J. D. Purcell, and D. L. Garrett. 6, 365 (1967)

Highlights of Twenty Years of Optical Space Research— Richard Tousey. 6, 2044 (1967)

TRAUB, Alan C.

Stereoscopic Display Using Rapid Varifocal Mirror Oscillations—Alan C. Traub. 6, 1085 (1967)

TRIVELPIECE, A. W.

Collective Oscillations in a Plasma. A. I. Akhiezer, R. V. Polovin, A. G. Sitenko, and K. N. Stepanov; translated by H. S. H. Massey—Book Review by A. W. Trivelpiece. 6, 2018(B) (1967)

TRYTTEN, Grover

Comments on Optical Characteristics of a Proposed Reflectance Standard—Grover Trytten and Wayne Flowers. 6, 979(L) (1967)

TUBBS, Lloyd

Further Studies of Overlapping Absorption Bands—Lloyd D. Tubbs, C. E. Hathaway, and Dudley Williams. 6, 1422(L) (1967)

TURNER, E. H.

Clamped Electrooptic Coefficients of KDP and Quartz-R. D. Rosner, E. H. Turner, and I. P. Kaminow. <u>6</u>, 778(L) (1967) TWOMEY. S.

Some Aspects of the Optical Estimation of Microstructure in Fog and Cloud—S. Twomey and H. B. Howell. <u>6</u>, 2125 (1967)

UPATNIEKS, Juris

Improvement of Two-Dimensional Image Quality in Coherent Optical Systems—Juris Upatnieks. 6, 1905 (1967)

VANCE, Miles E.

Measured Internal Losses and Output Energies of Neodymium Glass Lasers—Miles E. Vance. <u>6</u>, 775(L) (1967) VANDER LUGT, A.

The Effects of Small Displacements of Spatial Filters— A. Vander Lugt. 6, 1221 (1967)

VAN HEEL, A. C. S.

The Rapid and Precise Determination of the Optical Thickness of Thin Coatings in a Vacuum—A. C. S. van Heel and W. van Vonno. 6, 793 (1967)

Lens and Surface Testing with Compact Interferometers—A. C. S. van Heel and C. A. J. Simons. 6, 803 (1967)

VANIER, Jacques

Experiments on the Interaction of Lyman α Radiation and Atomic Hydrogen—Jacques Vanier. 6, 167(L) (1967)

VAN VLIET, K. M.

Noise Limitations in Solid State Photodetectors—K. M. van Vliet. 6, 1145 (1967)

VAN VONNO, W.

The Rapid and Precise Determination of the Optical Thickness of Thin Coatings in a Vacuum—A. C. S. van Heel and W. van Vonno. 6, 793 (1967)

Abraham Cornelis Sebastiaan van Heel-C. A. J. Simons and W. van Vonno. 6, 799 (1967)

VARGADY, Leslie O.

Optical Alignment (With the Rank Taylor Hobson Micro-Alignment Telescope and Its Accessories)—Book Review by Leslie O. Vargady. <u>6</u>, 917(B) (1967)

VELZEL, C. H. F.

Development of a Ring Laser for Polarimetric Measurements—H. J. Raterink, H. v. d. Stadt, C. H. F. Velzel, and G. Dijkstra. 6, 813 (1967)

VERDONE, Patrick H.

A Telescope Suitable for Rocket-Borne Instrumentation— Patrick H. Verdone. 6, 570(L) (1967) VERKHOVSKAYA, K. A.

Anomalous Shift of the Absorption Edge in Ferroelectric BaTiO₃ under an Electric Field—V. M. Fridkin and K. A. Verkhovskaya. <u>6</u>, 1825 (1967)

VILKOMERSON, D. H. R.

Some Effects of Emulsion Shrinkage on a Hologram's Image Space—D. H. R. Vilkomerson and D. Bostwick. 6, 1270(L) (1967)

VILLE, Paul

A Balloon-Borne Diffusing System for Infrared Radiation from 1 μ to 5 μ —Uwe Fink and Paul Ville. 6, 1424(L) (1967) VINE. J.

Optical Means for Enhancing the Sensitivity of a Tri-Alkali Photocathode—M. A. Novice and J. Vine. 6, 1171 (1967)

VOGL, T. P.

Semiautomatic Generation of Optical Prototypes-R. J. Pegis, T. P. Vogl, A. K. Rigler, and R. Walters. <u>6</u>, 969 (1967)

VON ESSEN, K. J.

The Backscattering and Extinction of Visible and Infrared Radiation by Selected Major Cloud Models-L. W. Carrier, G. A. Cato, and K. J. von Essen. 6, 1209 (1967)

VRABEL, J.

A Multiple-Beam Interferometer for Use with Spherical Wavefronts-L. R. Heintze, H. D. Polster, and J. Vrabel. 6, 1924 (1967)

WALDMAN, Gary S.

Comments on Zone Plate Theory Based on Holography— Kenneth I. Clifford and Gary S. Waldman. 6, 1415(L) (1967) WALTERS, R.

Semiautomatic Generation of Optical Prototypes—R. J. Pegis, T. P. Vogl, A. K. Rigler, and R. Walters. 6, 969 (1967)

WANKE, E.

Self Modulating, Derivative Optical Spectroscopy. Part II: Experimental—G. Bonfiglioli, P. Brovetto, G. Busca, S. Levialdi, G. Palmieri and E. Wanke. <u>6</u>, 447 (1967) WARD, John F.

Newly Measured and Calculated Wavelengths in the Vacuum Ultraviolet Spectrum of Neutral Nitrogen-Victor Kaufman and John F. Ward. 6, 43 (1967)

Application of Hologram Techniques for Particle Size Analysis—Brian J. Thompson, John H. Ward, and William R. Zinky. 6, 519 (1967)

WARD, R. C.

Differential-Interterometer Seeing Meter—R. C. Ward and G. V. Berry. 6, 1136(L) (1967)

WATANABE, A.

Multiply Diffracted Light in Ebert Monochromators—A. Watanabe and G. C. Tabisz. 6, 1132(L) (1967)

WATANABE, K.

Absorption Coefficient and Photoionization Yield of NO in the Region 580-1350 Å-K. Watanabe. Frederick M. Matsunaga, and Hajime Sakai. 6. 391 (1967)

WEIDNER, V. R.

High Purity Powdered CsI as a High Reflectance Infrared Diffuser—Jon Geist, Gerhart J. Kneissl, and V. R. Weidner. 6, 1280(L) (1967)

WEINER, Melvin M.

Atmospheric Turbulence in Optical Surveillance Systems— Melvin M. Weiner. <u>6</u>, 1984 (1967)

WEINER, Seymour

Miniature Optically Immersed Thermistor Bolometer Arrays
—Russell De Waard and Seymour Weiner. 6, 1327 (1967)

WELBER, B.

The Measurement of Infrared Dispersion in Solids by a Method Based on Small Particle Scattering—B. Welber. 6, 925 (1967)

WELSH, H. L.

Spectroscopy Research at the McLennan Physical Laboratories of the University of Toronto-Elizabeth J. Allin, A. D. May, B. P. Stoicheff, J. C. Stryland, and H. L. Welsh. 6, 1597 (1967)

WENDT, Frank

Making a High Efficiency Antihalation Backing for Photographic Plates which Eliminates Interference Bands Produced by Coherent Light-Richard Foley and Frank Wendt. 6, 977(L) (1967)

WERLICH, H. W.

A Computer Generated Spatial Filter, Applied to Code Translation—A. W. Lohmann, D. P. Paris, and H. W. Werlich. 6, 1139(L) (1967)

WERNER, W.

The Geometric Optics Aberration Theory of Diffraction Gratings—W. Werner. 6, 1691 (1967)

WESTPHAL, James A.

A Method for Obtaining Differential 8-13 μ Spectra of the Moon and Other Extended Objects—Alexander F. H. Goetz and James A. Westphal. 6, 1981 (1967)

WHALLEY E

Symposium on the Structure of Ice. Water, and Aqueous Solutions; held as part of the Eighteenth Mid-American Symposium on Spectroscopy, Chicago, 15-18 May 1967—E. Whalley. §, 1596(MR) (1967)

WHITCHER, R. E.

Time-Resolved Beam Structure of an Active Q-Switched Ruby Laser-W. E. K. Gibbs and R. E. Whitcher. <u>6</u>, 1957 (1967)

WHITE, A. D.

Use of Cer-Vit Material in Low Expansion Reference Optical Cavities—A. D. White. 6, 1138(L) (1967)

WHITE, D. R.

Chemical Analysis in Photography. G. Russell—Book Review by D. R. White. 5, 175(B) (1967)

WIEDER, H.

Reactive Optical Information Processing. II: Factors Affecting the Applicability and Efficiency of the Method—H. Wieder and R. V. Pole. 6, 1761 (1967)

WIEDER, N.

Reactive Optical Information Processing. I: Theory of Information Recovery and Resonator Mode Structure—R. V. Pole, N. Wieder, and E. S. Barrakette. 6, 1571 (1967)

WIERUM, Frederic A., Jr.

Anomaly Observed in Spectral Data Recorded on a Hypersensitized Film-Milton A. Frost, III, and Frederic A. Wierum, Jr. §, 1278(L) (1967)

WILCOX, R. E.

Diffraction by Fiber Mosaics—R. E. Wilcox. <u>6</u>. 582(L) (1967) WILEY, W. J.

Folded Laser Raman Source-W. H. Fletcher, J. D. Allen, and W. J. Wiley. 6, 1129(L) (1967)

WILLARD, Mary L.

Practical Photomicrography. J. Bergner, E. Gelbke, and W. Mehliss; translated by K. S. Ankermit-Book Review by Mary L. Willard. <u>6</u>, 2139(B) (1967)

WILLIAMS, Charles S.

Limitations on Optical Systems for Images of Many Discrete Elements of Area—Charles S. Williams. <u>6</u>, 1383 (1967) WILLIAMS, Dudley

Infrared Absorption by Overlapping Bands of Atmospheric Gases—Gary M. Hoover, Charles E. Hathaway, and Dudley Williams. 6, 481 (1967)

Further Studies of Overlapping Absorption Bands—Lloyd D. Tubbs, C. E. Hathaway, and Dudley Williams. 6, 1422(L) (1967)

WILLIAMS, Walter J.

A Balloon-Borne Grating Spectrometer—David G. Murcray, Frank H. Murcray, and Walter J. Williams. §, 191 (1967)

WILLMORE, A. P.

The Performance of Open Structure Photomultipliers in the 1100 Å to 250 Å Wavelength Region—A. F. Timothy, J. G. Timothy, and A. P. Willmore. 6, 1319 (1967)

WILLS B I.

A Computer-Operated Following Ellipsometer-J. L. Ord and B. L. Wills. 6, 1673 (1967)

WILSON, M. Kent

Wavelength Standards in the Infrared. K. Narahari Rao, Curtis J. Humphreys, and D. H. Rank—Book Review by M. Kent Wilson. §, 466(B) (1967)

WINSLOW, O. G.

Improvement of Imagery in Rotating Mirror Cameras by Helium Atmosphere—O. G. Winslow. 6, 160(L) (1967)

WIRICK, M.

A Polarizer for the Vacuum Ultraviolet—D. L. Steinmetz, W. G. Phillips, M. Wirick, and F. F. Forbes. <u>6</u>, 1001 (1967) WITHSTANDLEY, Victor

Infrared Spectroscopy with a Copper-Doped Germanium Detector—T. K. McCubbin, Jr., Soemitro Atmosoekarto, and Victor Withstandley. 6, 1131(L) (1967)

WOJCIK, Walter

Annual Meeting of American Society of Photogrammetry— American Congress of Surveying and Mapping, 5-10 March 1967, Washington, D. C.—Walter Wojcik. 6, 1562(MR) (1967) WONG, J. Y.

Spectral Purity for Far Infrared Grating Spectroscopy— E. D. Nelson and J. Y. Wong. §, 1259 (1967)

WRIGLEY, J. D., Jr.

Infrared Reflectance and Optical Constants of Tektites—C. H. Perry and J. D. Wrigley, Jr. 6, 586(L) (1967)

WYNNE, C. G.

The Design of Double Gauss System Using Digital Computers—M. J. Kidger and C. G. Wynne. 6, 553 (1967)

Afocal Correctors for Paraboloidal Mirrors—C. G. Wynne. 6, 1227 (1967)

YAMADA, H. Y.

A High-Temperature Blackbody Radiation Source—H. Y. Yamada. 6, 357(L) (1967)

YEN, Victor L.

Effects of the Variation of Angle of Incidence and Temperature on Infrared Filter Characteristics—Martin L. Baker and Victor L. Yen. 6, 1343 (1967)

YODER, John R.

An Earth-Based, Infrared Lunar Mapper for Thermal and Composition Studies-John D. Rehnberg, John R. Yoder, and Graham H. Hunt. 6, 1111 (1967)

YODER, P. R., Jr.

A 50.8-cm Focal Length, f/1 Catadioptric Objective—P. R. Yoder, Jr., and W. H. Scidmore. 6, 973 (1967)

YOUNG, Andrew T.

Properties of Photomultipliers—Andrew T. Young. 6, 979(L) (1967)

Design of Cassegrain Light Shields—Andrew T. Young. 6, 1063 (1967)

YOUNG, C.

Fourier Transform Spectrometer—Radiative Measurements and Temperature Inversion—L. W. Chaney, S. R. Drayson, and C. Young. §, 347(L) (1967)

YOUNG, Leo

Multilayer Interference Filters with Narrow Stop Bands— Leo Young. 6, 297 (1967)

YUROV, S. G.

Photoptic, Mesopic, and Scotopic Vision—S. G. Yurov. 6, 1877 (1967)

YUSTEIN, D.

Diffraction Patterns of Chinese Characters—B. J. Pernick, C. Bartolotta, and D. Yustein. <u>6</u>, 1421(L) (1967)

ZELENKA J. S

Effects of Film Nonlinearities in Holography—A. A. Friesem and J. S. Zelenka. 6, 1755 (1967)

ZINKY, William R.

Application of Hologram Techniques for Particle Size Analysis—Brian J. Thompson, John H. Ward, and William R. Zinky. 5, 519 (1967)



W. J. Condell, Jr. of the Laboratory for Physical Sciences